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W.H.C.F.

COOPER ORNITHOLOGICAL CLUB

CONTENTS

Some Owls Along the Gila River in Arizona (with five photos).....	<i>M. French Gilman</i>	145
The Nesting of the Heermann Gull (with two photos).....	<i>Pingree I. Osburn</i>	151
Fall Notes from Eastern Kansas.....	<i>Alex. Wetmore</i>	154
Cliff Climbing for Prairie Falcon Eggs (with two photos).....	<i>George Richards</i>	164
Nesting Notes on the Lucy Warbler.....	<i>M. French Gilman</i>	166
Notes on Some Birds of Kern County.....	<i>Harry H. Sheldon</i>	168

FROM FIELD AND STUDY

The Wilson Phalarope at Santa Barbara.....	<i>Bradford Torrey</i>	173
Limonites ruficollis in Alaska.....	<i>John E. Thayer</i>	173
The Allen Hummingbird at San Diego in Winter.....	<i>Bradford Torrey</i>	173
Red-eyed Cowbird at Sacaton, Arizona.....	<i>M. French Gilman</i>	173
The Blue-winged Teal at Santa Barbara.....	<i>Bradford Torrey</i>	173
Notes from Placer County.....	<i>Ernest Adams</i>	174
The Sage Thrasher at San Diego.....	<i>Bradford Torrey</i>	174
Notes on the Nesting of the Bank Swallow.....	<i>D. I. Shepardson</i>	174
The Ruddy Turnstone at Santa Barbara.....	<i>Bradford Torrey</i>	174
Sparrow Hawk Nesting in a Bird Box.....	<i>Loye Holmes Miller</i>	174

EDITORIAL NOTES AND NEWS.....		175
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PUBLICATIONS REVIEWED.....		176
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CORRESPONDENCE: A Color Code.....	<i>F. Grinnell, Jr.</i>	177
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DIRECTORY OF MEMBERS OF THE COOPER ORNITHOLOGICAL CLUB.....		177
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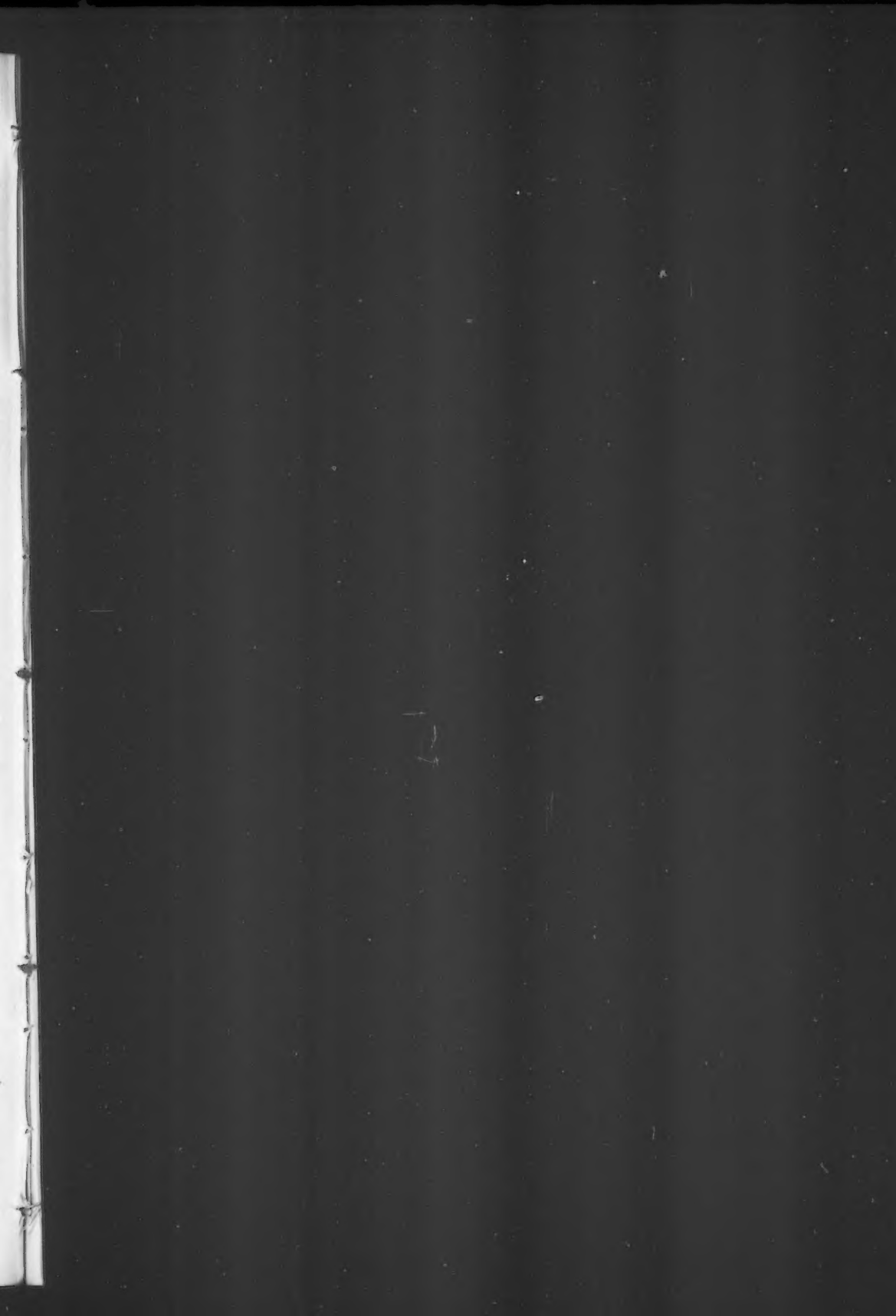
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THE CONDOR A MAGAZINE OF WESTERN ORNITHOLOGY.



Volume XI

September-October 1909

Number 5

SOME OWLS ALONG THE GILA RIVER IN ARIZONA

By M. FRENCH GILMAN

WITH FIVE PHOTOS

DURING the season of 1908 and 1909 I made the following notes on the owls found at the points here named, on the Pima Reservation in Arizona: Blackwater, 1362 feet altitude; Sacaton, 1275 feet; and Agua Caliente, 380 feet. Up to date six species have been noted: Western Horned Owl (*Bubo virginianus pallescens*), Barn Owl (*Aluco pratincola*), Spotted Screech Owl (*Otus trichopsis*), Burrowing Owl (*Speotyto cunicularia hypogaea*), Ferruginous Pigmy Owl (*Glaucidium phalaenoides*) and Elf Owl (*Micropallas whitneyi*).

Of these the Western Horned is most in evidence, both to eye and ear, tho perhaps not more numerous than some of the others. The Pima Indians call this bird Chú koot, and say it is the soul, spirit, or reincarnation of some of their dead. Their ideas on the subject seem rather hazy, and it is hard to get at just what they do believe on the question. Since a certain interview with a very intelligent Indian in California, I have been rather skeptical in regard to what Indians tell about their peculiar beliefs and notions. I was commenting to this Indian about a certain paper that had appeared wherein he was quoted concerning some Indian superstitions, etc. He laughed heartily and said, "Oh, when those people ask us a lot of fool questions we tell them most anything; we give them a good fill!"

Western Horned Owls are found mostly in cottonwood trees along the river, and at night range out on the alfalfa fields in search of gophers. I have seen them also in bluffs and cliffs on the rocky hills a few miles from the river. At Blackwater and Sacaton they are very numerous, but at Agua Caliente only one was seen, that on a rocky hillside. A favorite perch of the bird is the roof of a building, and there they sit and murder sleep in the most approved fashion, along about 2 A. M. I have been obliged to get up repeatedly and go out and throw rocks at them in order to get my normal amount of slumber.

The eggs are often placed in an old nest of the Red-tailed Hawk, in a cottonwood tree or a giant cactus (*Cereus giganteus*). The photo, taken by S. C. Mason of the Department of Agriculture and used by his courtesy, shows a nest in a big

cactus, and a careful scrutiny reveals an Owl's head projecting above the rim of the nest.

February 28, I found two eggs in an old Redtail's nest, 60 feet up in a cottonwood tree. Both old birds were at home but made no demonstration when I climbed to the home. A Redtail that perched in the top of a neighboring tree did not escape so easily tho, as the male owl savagely attacked him, and drove him off. March 14 another nest was found containing two eggs. This nest was merely a decayed hollow in the forks of a big cottonwood tree, 15 feet from the ground. The nest was discovered by throwing a club into the tree, when the bird flew out.



GIANT CACTUS (*CEREUS GIGANTEUS*); A WESTERN HORNED OWL
IS TO BE SEEN ABOVE THE EDGE OF THE NEST IN THE FORKS

Nothing had been visible, but the tree looked owlsh, and a bombardment brought results.

For at least four years a pair of these owls have nested in the pre-historic Casa Grande ruins; see photo by Frank Pinkley, the custodian. Mr. Pinkley told me the birds raised a brood each year in the old building, and had never been molested except once, when one of them developed a decided taste for prize Wyandot chickens. This was his undoing, but his widow secured another mate very soon and went on keeping house as tho nothing had happened.

Barn owls are rare in this locality, as I have seen only four of them in two years here; and one at Agua Caliente. The Indians call this bird *Er-er-tvá-ho-tum*, and say it is a blood-sucker or vampire. I helped capture two of the owls in the bottom of a dry well; another was seen in an old adobe building, while the fourth was in a cottonwood tree near the river. At Agua Caliente the owl was in a clump of mesquite trees at the base of a Mal Pais hill.

The Spotted Screech Owl is rather numerous, living in natural cavities and Gilded Flicker holes in cottonwood and willow trees. The Indians would give me no name for this owl; one man said it had a name but he had forgotten it; another looked puzzled and said he thought it had a name but he had never heard it. They all knew the bird however. The Screech Owl I believe is responsible for the disappearance of many of the smaller birds, and some of the larger ones. I have frequently found feathers in their nests, and last year saw remains of a Bluebird and an Oriole in one of their nests. Woodpeckers frequently fall victim as I have found remains of the Gilded Flicker, and Gila and Texas Woodpeckers in and near their nests and



CASA GRANDE RUINS WHICH A PAIR OF WESTERN HORNED OWLS MADE THEIR HOME
FOR SEVERAL YEARS

retreats. The safety of birds nesting in holes near the home of these owls may depend on the food supply or on the temper of the destroyer. That they do not always molest birds near them is proven by the fact that nests of young birds may be found in holes very close to them. I saw a nest of young Flickers in a hole only three feet from the nest of an owl, and saw others only a few feet away. In holes in a dead cottonwood stump 25 feet high I found the following happy family: a Sparrow Hawk in the top story; a Gilded Flicker next; then a Screech Owl; and last a wood-rat.

March 29 was the earliest date of nesting, and the four eggs were about half incubated. April 12 was the latest date, with four fresh eggs; and on that date were also seen nests with young recently hatched. A hole in a low willow stump contained a dead owl on three addled eggs. One nest of young contained two partly eaten mice and some frog legs; but most holes showed signs that small birds figured largely on the bill-of-fare. Four eggs seem to make up the usual set, as the majority of nests contained that number; while sets of three were occasionally

found. Nests ranged from seven to twenty-five feet from the ground and were mostly in Gilded Flicker holes, tho sometimes a natural cavity was utilized. In most cases the sitting female seemed to be in a trance and made no resistance when taken from the nest. One bird when lifted from three downy young seemed completely dazed, and sat on my hand for a minute or more, then gravely tumbled back into the nest. A pair have nested for two years in a willow tree in a front yard here at the school. In the evening they are quite noisy and fly back and forth from the nest tree to a certain other tree nearby. The old ones seem to provide for and look after the young for some time after maturity of the latter.

Burrowing Owls, or, more properly, Ground Owls, are rare in this immediate vicinity, tho said to be more numerous on down the Gila river. I have seen only four here; one was dug out of a hole on the school farm by Indian boys; and

another flew up in the face of my team one evening nearly causing a runaway. The Pimas call this owl Kau-kau-hä'.

The little Ferruginous Pigmy Owl is fairly numerous and may be seen flying about in the daytime. They are not wild and the observer may approach as near as ten or fifteen feet before flight is taken. The bird will sit quietly with eyes staring at you, all the while impudently jerking his tail from side to side in a most undignified and un-owl-like manner. His call, given usually in the evening, is a diminutive hoot, repeated at short intervals. The only complete set found contained four eggs, and was discovered by seeing the bird leave the nest while I was a short distance from the tree and before any alarming demonstra-



AN ADULT FERRUGINOUS PIGMY OWL

tion had been made. She was very shy about returning to the nest. After returning, she hesitated some time before venturing into the hole, and when she did enter, she came out at once for a look around. At my first movement she hastily left the nest again, and when she came back her mate accompanied her. This nest was in a deserted Gila Woodpecker's hole 20 feet from the ground in a cottonwood tree. While they are sitting on a tree in plain sight they are not shy, but when in a hole they are very timid, afraid of being captured I suppose. A few times I have seen a head stick from a hole but every time the bird got out before I could approach very near.

At Agua Caliente I heard one of the owls hooting repeatedly one hot day, and investigating, found two hummingbirds busily attacking him as he sat in a mesquite tree. I began to look for his mate and soon saw a promising looking Gila

Woodpecker hole some seven feet up in a palo verde tree. Wishing to capture Mrs. Pigmy if she were at home I softly crept to the tree and stepped up on a low branch in order to reach the hole. At the first noise the bird attempted to leave, but a hand clapt over the hole stopt her. A big handkerchief was thrust down the hole while I enlarged it sufficiently to insert my hand and arm. When my hand reached the bottom I thought it was in contact with a live wire, and I was absolutely sure I had "grabbed a live one."

When the hand was withdrawn the owl came along quite easily. One claw was thru the nail of my little finger, another imbedded in big finger, while her beak was thrust deep into my thumb. Blood was running from all three wounds, and the bird hung on like a bulldog. It took no little diplomacy to remove her without forming an entangling alliance with the other hand, but she was finally safe in a handkerchief. I will back one of these owls in a rough and tumble fight with any-



ADULT PAIR OF ELF OWLS

thing twice the size. The nest contained one egg, a small matter to put up such a big fight about.

A cage was provided for Lady Bite-'em, and experiments in diet began. She freely ate the bodies of small birds collected, and was properly patriotic in that she showed a savage delight in assimilating English Sparrows. I kept her about six weeks and her appetite improved all the time, any small fry being grist for her mill. She usually began eating at the head, and while she ate freely in the daytime, she disliked being watcht at her meals. I handled her frequently, at first with gloves on, in order to prepare her for a photograph. She objected to posing, but after some difficulty a picture was secured by Mr. E. W. Hudson, in charge of the U. S. Experiment Station here at Sacaton. When I releast her, she made off at once, her powers of flight not at all impaired by the weeks of captivity.

The tiny Elf Owl by reason of his strictly nocturnal habits is rarely seen. My

first one was flushed from a hole by rapping on the base of a tree. I collected him, and returning, climbed the tree to another promising-looking hole higher up. Cutting into this I secured the female. The first bird had been shot at long range, and suffered only an injured wing, so I took them home and kept them in a cage for a short time. They freely ate what few crickets and grasshoppers I could secure for them, but refused to eat small birds. Mice were not procurable, and the supply of insects running short, I had to add them to my collection of skins. During the day they remained very quiet, but at night made a choice assortment of noises, which, as I kept them in my room, were very entertaining, especially about midnight. One note very much resembled that of the Western Bluebird, and another sounded like the squeak concealed in a rubber doll. At no time did they bite or scratch, and were very easy subjects to pose for a photograph. I am indebted to Mr. Hudson for the pictures of these owls as well as for that of the Pigmy.



ELF OWL

May 10, I cut into a woodpecker's hole in a cottonwood tree and secured an owl and one egg. I took the bird home and in the night she laid another egg, and as a reward I turned her loose. Out driving one day I noticed an Elf head stuck from a hole in a giant cactus some 16 feet from the ground. I drove the wagon close to the tree, and by standing up on the back of the seat could reach the first limb. Up the cactus I scrambled and scratched my way, while Mr. Hudson applauded and took a snap-shot with his camera. By standing on top of a branch I could reach the hole, but found no eggs to compensate for time afterwards spent in removing spines from various portions of my anatomy.

The Pima Indians seem to make no distinction between the Elf and the Pigmy Owls, calling them both *Koó-ah-kohld*. I showed both species to them, and pointed out the difference, but it was all one to them. So I have to be content with their specific names for only four of the six owls found here.

Sacaton, Arizona.

THE NESTING OF THE HEERMANN GULL

By PINGREE I. OSBURN

WITH TWO PHOTOS

IN the spring of 1909, it was my privilege to be one of a party to make a cruise down the west coast of Mexico in search of interesting forms of bird and animal life. The primary object of my trip was to discover, if possible, the nesting place of the Heermann Gull (*Larus heermanni*). Every year these birds have migrated south in the spring and were generally supposed to breed somewhere in the Gulf of Lower California. After a sea voyage of over 1500 miles (from San Diego, California) they were located breeding on a remote rock off the coast of the State of Jalisco, Mexico, in about the parallel 18° N.

Prior to the time of the visit of our party little or nothing was known of the habits of these birds in their breeding grounds, and the observations taken in this colony have brought to light many facts.



NESTING GROUNDS OF THE HEERMANN GULL: ISLANDS OFF
COAST OF JALISCO, MEXICO

No Heermann Gulls were seen on the trip until found at their breeding grounds, nor were any noted flying about at any distance from the nests on the rock, which would indicate that they do not wander away from their colony in the nesting time, as do the Western Gulls (*Larus occidentalis*). When approaching a colony of Western Gulls its nearness is evidenced by occasional individuals sailing about for miles on all sides of their nesting grounds. Not so with *Larus heermanni*. They were not seen farther than one-half mile from the colony. Possibly this is one reason why their nesting grounds are easily overlooked. This fact was imprinted upon me clearly while getting acquainted with the species in its native haunts. We were anchored two days near the nesting rock before the first bird was seen.

My first glimpse of the birds was when an adult flew near enough to our schooner for identification, and I at once determined to make an effort to find more; for what was an adult doing in these waters at the height of nesting time, April 10? The next morning (April 11) I noted a few flying about over a low flat rock a little distance from our anchorage. It was here that I first found them breeding

and here that the majority were nesting, altho there were about nine pairs on another rock lying fifty yards to the north, and a few scattered individuals which I will mention later.

As our boat neared the island a few more, beautifully plumaged adults came out to greet us, and when I climbed over the top of the cliff which surrounds the rock, I came in view of the entire colony.

The rock was about twenty-five feet high and fifty by one-hundred-and-fifty feet across, with a plat of coarse bunch grass a foot high in the center, and along the edge a barren strip of white rock broken up here and there with crevices and boulders. The rock contained thirty-one pairs of breeding birds, ascertained after a careful count. The birds in the nesting grounds behaved in much the same manner as the Western Gulls, but were tamer, swooping down within a foot of my head and alighting nearby, while I was photographing in the colony.

Their cry was an oft-repeated "cow-awk", "cow-eek", given when high in the air, and a rapid guttural "caw-ca-ca-ca" when hovering near the nest.

No adults were noted eating other gulls' eggs, nor did I see them disturb the Blue-footed Boobys (*Sula nebouxi*) which were nesting on a nearby island. They were beautiful with graceful flight and striking plumage.

The plumage of the adult birds is too well known to warrant a description here. Of the series now in my collection (one skin of which was taken by Mr. Chester Lamb, my companion and co-worker on this trip) both sexes are identical, with pure white heads. One downy young was taken on my second visit to the rock, three days later, April 14. At this age the bird shows a soft downy coat, of a light creamy color on the underparts, which merges into vinaceous cream buff on the mantle and nape; crown and occiput slightly speckled with black; nape clear cream; entire back and rump heavily spotted with blackish slate color; wings, under side plain white, upper parts spotted with blackish; flanks pale cream spotted with blackish. Measurements in millimeters, length 148, wing 30, bill 17. Bill hook, nostril near middle, section on upper mandible back of nostril dark, remainder light brownish. A few immatures were seen flying near the rock. Their entire plumage was soft, sooty gray, except blackish on tail and wing quills.

A cursory survey of the rock showed that it was steep on all sides. The birds undoubtedly preferred the level ground for a nesting place, as only one set was found on this cliff.

The nests were located usually between boulders, or nestled down in the bunch grass in the center of the rock. Those in the grass were usually well made of sticks, dry grass and weeds, and sometimes with a slight lining of feathers. They were much better made and more compact than those of the Western Gull. Several nests in my collection still show their original shape and construction; also retain the strong odor peculiar to these birds on their nesting grounds. A few sets were found with almost no nest, simply a cup-shaped cavity scantily lined with shells and a stick or two. The nests were well scattered about over the rock, no close grouping being evident. The measurements of the nests average, in inches: outside width 10; depth $2\frac{1}{2}$.

No other species of Gull was seen in company with the Heermann Gulls, and none within hundreds of miles of these islands.

The eggs of this species are unlike those of other Gulls, and can be distinguished with a series. My series show the usual variation in color and size so common in eggs of the genus *Larus*. In shape they are in general identical with others of this genus. Sets vary considerably in size, and average smaller than those of *Larus occidentalis*. The first visit to the rock was on April 11. At this time about one-

third of the eggs were heavily incubated. The remainder were in all the lesser stages. The sets contain two and three eggs in about equal numbers, with a possible majority of three. Extreme sets measure in millimeters: 63×44 ; 61×41 ; 60×42 (this was the largest); the smallest measures 58×41 ; 56×42 ; 53×36 (this last egg was the smallest of the series). Of the series of sets of three the average measurements are: 58.1×41.3 ; 58×41.4 ; 57×40.2 ; the largest set of two is 60×43.2 ; 59.2×42.1 ; and the smallest measures 58.4×41 ; 56.1×41.3 ; average for sets of two, 59×40 ; 58×40.3 . The average sized egg is 58×40.2 .

The eggs show the greatest variation in color. The general ground color is pearl gray with a very slight creamy tinge. In some the ground color is ashy gray and in others light bluish gray. All the eggs are spotted and blotched, the markings showing no particular rule for location at one end or the other. They have faint lavender spots which are covered with smaller but more distinct spots of grayish brown, umber, grayish blue and dark lavender. They are very rarely scratched with fine lines, but occasionally the spots and splashes show a trend to a lengthwise direction. A few examples also have faint wreaths about the large end. Where



Typical nest of the Heermann Gull

this occurs the area inside the wreath is usually void of heavy markings and decorated only with faint irregular lavender spots. In extreme examples the eggs range from one egg, which is indistinctly speckled with cinnamon brown and marked evenly with faint lavender, to an egg which has a ground color twice as deep as the egg just mentioned, and heavily splotched with dark olive and dark lavender. There is also one set of three which is especially unlike the others in that the eggs are smaller and more elongated, both ends of the egg being almost identical in shape. This set is differently marked also. The spots are dingy and not clearly defined as in the remainder of the series. In all, they are the handsomest eggs of any species of this genus which I have ever seen.

Besides the colony described, which was the most prominent, there was a small one of nine pairs on a rock fifty yards north of the main rock. There were also a few individuals nesting in remote locations on another rock. These nests were difficult to locate and this was only possible by watching the bird until she hovered near the nesting site. It seemed unusual to find Gulls nesting in separate pairs, while a colony was near.

The islands are rocky and barren except for occasional bunches of grass and wild pineapples, and are a wild, picturesque habitat for the Heermann Gull.
Pasadena, California.

FALL NOTES FROM EASTERN KANSAS

By ALEX. WETMORE

THE material upon which this paper is based, consists of nearly six hundred skins, collected by Mr. Charles D. Bunker and myself on two collecting trips in the same region.

This locality is known as Washington Creek, and lies about eight miles in a direct line southwest of Lawrence, Kansas, in the edge of the hills, and is back from the main traveled roads running into the hills. The draws are timbered with oaks and elms, with a thick undergrowth of buck-brush and briars in places. There are two creeks here: Washington Creek, and a smaller one known as Hasty Creek, both lying to the west. One line of hills is bare of timber, being covered with sumachs and tall scattering weeds, with numerous rocky points projecting from it, and a level valley lying below. Along Washington Creek are some fair-sized growths of heavy bottom timber.

Our two trips were made from September 14 to 21, 1907, and September 11 to 18, 1908, and were made in the interests of the Kansas University Museum, our object being to collect birds mainly, together with what mammals offered themselves. Camp was made both times in a draw where it widened between two hills, and a tent was pitched to sleep in, while we used an old two-roomed cabin for a work room. The mornings were spent in collecting and the afternoons in preparing specimens.

During 1907 we had very poor weather, as the wind blew almost constantly from the southwest, and it was excessively hot. On only two or three days was it quiet, and the birds in consequence remained well under cover. We had one light rain during the night, which, however, did not hinder our field work. The second year the weather was more in our favor, as what wind there was came mostly from the north, and favored rather than hindered migration. One light rain fell during this year also.

Most of our collecting was done within a radius of three miles of camp, and in this territory we had a great variety of ground, ranging from small marshes to barren hill-tops. The tall trees about camp attracted the birds, and many of our meals were interrupted by a chase after a desirable specimen, which frequently was pursued into the nearby timber.

It is a matter of some interest to note the difference in the results obtained on the two trips. During 1907, with the strong southwest winds, migration was practically almost at a standstill, and a great share of the birds obtained were the resident species. Several of the residents, such as *Hylocichla mustelina*, *Spiza americana*, and *Setophaga ruticilla* were taken, while *Ictinia mississippiensis* could have drifted up from the south under the impulse of that same wind. The season seemed less advanced, too, as was shown in the plumage of the birds, many of those taken being in full molt.

The next year this was entirely changed. Many of the smaller migrants were

taken, and the total number of species was half again as great as on the preceding year. The plumage of the birds was also better as a whole, and farther advanced. Small bands of migrants were frequently seen in the morning and evening, working toward the south, something that was entirely lacking the year before. A list of the species taken on each of the two years is introduced here for the sake of comparison.

1907

Bartramia longicauda
Porzana carolina
Colinus v. virginianus
Zenaidura m. carolinensis
Cathartes a. septentrionalis
Ictinia mississippiensis
Accipiter cooperi
Otus a. asio
Coccyzus a. americanus
Dryobates v. villosus
Dryobates p. medianus
Melanerpes erythrocephalus
Centurus carolinus
Antrostomus vociferus
Colaptes a. luteus
Chordeiles v. virginianus
Chaetura pelagica
Sayornis phoebe
Nuttallornis borealis
Myiochanes virens
Cyanocitta c. cristata
Corvus b. brachyrhynchos
Quiscalus q. aeneus
Astragalinus t. tristis
Cardinalis c. cardinalis

Passerina cyanea
Spiza americana
Piranga erythromelas
Piranga r. rubra
Riparia riparia
Vireosylva olivacea
Vireosylva g. gilva
Lanivireo s. solitarius
Vireo g. griseus
Comsothlypis a. ramalinae
Dendroica a. aestiva
Geothlypis t. brachydactyla
Icteria v. virens
Setophaga ruticilla
Dumetella carolinensis
Toxostoma rufum
Thryothorus ludovicianus
Sitta c. carolinensis
Baeolophus bicolor
Penthestes a. atricapillus
Penthestes a. septentrionalis
Hylocichla mustelina
Planesticus m. migratorius
Sialia s. sialis

1908

Butorides v. virescens
Colinus v. virginianus
Zenaidura m. carolinensis
Cathartes a. septentrionalis
Otus a. asio
Coccyzus a. americanus
Ceryle alcyon
Dryobates v. villosus
Dryobates p. medianus
Melanerpes erythrocephalus
Centurus carolinus
Colaptes a. luteus
Antrostomus vociferus
Chordeiles v. virginianus
Chordeiles v. henryi
Chordeiles v. sennetti

Chaetura palagica
Archilochus colubris
Tyrannus tyrannus
Myiarchus c. crinitus
Sayornis phoebe
Nuttallornis borealis
Myiochanes virens
Empidonax flaviventris
Empidonax virescens
Empidonax trailli alnorum
Empidonax minimus
Cyanocitta c. cristata
Corvus b. brachyrhynchos
Quiscalus q. aeneus
Astragalinus t. tristis
Spizella p. pusilla

Cardinalis c. cardinalis
Passerina cyanea
Piranga erythromelas
Piranga r. rubra
Vireosylva olivacea
Vireosylva g. gilva
Lanivireo s. solitarius
Vireo g. griseus
Vireo b. bellii
Mniotilta varia
Vermivora r. rubricapilla
Vermivora c. celata
Compsothlypis a. ramalinae
Dendroica virens
Seiurus auroparilla
Oporornis agilis
Geothlypis t. brachydactyla

Icteria v. virens.
Wilsonia p. pusilla
Wilsonia p. pileolata
Setophaga ruticilla
Dumetella carolinensis
Toxostoma rufum
Thryothorus ludovicianus
Troglodytes a. parkmani
Sitta c. carolinensis
Baeolophus bicolor
Penthestes a. atricapillus
Penthestes a. septentrionalis
Regulus c. calendula
Hylocichla f. salicicola
Hylocichla u. swainsoni
Planesticus m. migratorius
Sialia s. sialis

In the 1907 list there is a notable absence of many common summer residents of the region, as: *Sturnella m. magna*, *Empidonax virescens*, *E. acadicus*, *Agelaius phoeniceus*, *Pipilo erythrophthalmus*, *Lanius l. migrans*, etc. The individuals of the species listed were not at all common and were very retiring. A few of the large Raptores were seen, but as none were taken they are not listed. Three species only, *R. riparia*, *L. solitarius* and *I. mississippiensis*, can be classed as true migrants, and of these the latter is a straggler from the south. Any of the others might have been breeding birds in the immediate vicinity. In fact as stated before there was during the period no appreciable migrational movement.

In the 1908 list the following common summer residents were taken, which were not found the previous year but which might be expected to occur regularly in comparative abundance: *C. alcyon*, *B. v. virescens*, *M. c. crinitus*, *E. virescens*, *S. p. pusilla*, *V. b. bellii*, and *T. a. parkmani*. *T. tyrannus* was merely a belated migrant and *A. colubris* is at best of uncertain occurrence in this locality.

The main part of the other birds, not taken the previous year, were the smaller migrants, which should occur regularly at this season and consisted in great part of the warblers. Conditions were particularly favorable for the migration of these birds, and on several occasions considerable flights of them were found. The other birds were more or less numerous, and more active also, and were easier to find, and on several cool mornings the birds were almost as noisy as they are in October.

This list is offered merely to give some idea of the avifauna of this part of Kansas in the early fall, and as much credit for it is due to the efforts of Mr. Bunker as to myself. There are many other species which can be added in succeeding years, but for the two periods in question, I believe it to be fairly complete. Collecting at this time of the year is rather disagreeable work anywhere, but we found it especially so. The heat made struggling thru the dense thickets, with the luxuriant growth of vegetation found there, exceedingly hard work, and when we worked the timber, the cobwebs caught on our faces and hands in the most exasperating manner.

Specimens were taken of all the species listed.

1. *Butorides virescens virescens*. Green Heron. A few of these birds were seen

along Washington Creek, but they were not at all common. One was also taken at the edge of a pond in the weeds, where it was feeding on frogs.

2. *Porzana carolina*. Sora. One taken Sept. 19, 1907, in a small marsh, was the only one seen. We were rather surprised to find it here, as it was a dry marsh, far from water, and there had been no rain for some time.

3. *Bartramia longicauda*. Bartramian Sandpiper. A single bird taken in an open field on top of a hill on the morning of Sept. 22, 1907. It had apparently just come in, and was looking for a place to light.

4. *Colinus virginianus virginianus*. Bob-White. During 1907 there were one or two pairs of quail along the side-hill south of camp, where they could be heard calling during the morning and evening. The next year there were at least three coveys within a radius of a mile; but the nearly grown birds were hard to flush. The birds here were probably from first settings, and were larger than those found in the river bottoms, whose first nests were destroyed by the heavy June floods.

5. *Zenaidura macroura carolinensis*. Mourning Dove. Common in suitable localities along Hasty Creek. We were sure of finding from two to a dozen during the morning and evening, near a ford, where they came for water. During the morning they sat around in the trees a good deal, and frequently came flying swiftly into water, while we were watching. Several young birds were taken in the immature plumage. The birds were seen usually two, three, or four together, showing that the male, female, and their young had remained in company after the nesting season.

6. *Cathartes aura septentrionalis*. Turkey Vulture. During 1907 there were three or four of these birds in the vicinity, but the next year the number had increased to twenty-five. They spent most of their time around the hills to the south, but shooting disturbed them, and when we were out in that direction they usually soared off across the valley. One or two, and sometimes the whole flock, were in sight from camp nearly all day long.

7. *Ictinia mississippiensis*. Mississippi Kite. During 1907 a flock of a dozen of these birds was found every day feeding over the bare hills south of camp. There was a long ridge here, with a series of points projecting from it, the whole covered with sumach bushes and tall weeds. In this cover there were great numbers of a species of cicada, on which the kites were feeding. They hunted back and forth in long circles, soaring and turning, hardly ever getting very far from the earth. Occasionally one swooped down over the brush, and captured an insect, and sailed off eating it while flying. We never saw the birds in trees during our whole stay, but always on the wing. The first day they were tame, and came right around us, and it was a minute or two before we realized what they were. We had several good shots, but had no loads heavy enough for them, and so were forced to come back later on. We got one that afternoon (Sept. 14, 1907) and two others later (Sept. 15 and 16), but the birds had become wilder and were hard to get. We had to remain quiet hidden in the weeds until the birds drifted around close enough for a shot.

They appeared to roost somewhere to the east, as they always came from that direction in the morning, and went that way in the evening. Those taken had all eaten nothing but the cicadas, and were exceedingly fat. They were gone by September 20, and were not seen again. We lookt for them carefully the next year, but failed to find them. This is, so far as is known, the farthest north that they have been taken in the state, tho they are reported as nesting near Baldwin, Kansas.

8. *Accipiter cooperi*. Cooper Hawk. These hawks were fairly common tho wild, and were seen nearly every day. One specimen in immature plumage was taken September 19, 1907. It was flying around the trees above camp just at daylight, calling "kek-kek-kek-kek" and was shot by Mr. Bunker after some trouble in locating it.

9. *Otus asio asio*. Screech Owl. Common all around camp but only one or two seen. In the evening they were quite noisy, and it was a pleasure to hear their tremulous notes, while we were sitting around in the dusk, smoking, reading or telling yarns after a hard day's work. We could never tell whether the notes came from the trees above us, or from farther away, and we tried several times to locate the birds without success. One night about nine o'clock while I was sitting on a stone wall watching for whip-poor-wills, an owl swooped down at my head several times. It was very dark and I could only see a shadow as it went by, but by a chance shot, I secured it with the auxiliary barrel.

10. *Coccyzus americanus americanus*. Yellow-billed Cuckoo. This species was common in the timber everywhere, and its loud notes were often heard. They were rather shy, however, and while we were moving around we only saw a few, most of our birds flying in on us, when we were motionless. They were excessively fat, and the greater part of them were molting, so that they made poor specimens. Occasionally we heard their notes at night.

11. *Ceryle alcyon*. Belted Kingfisher. One or two seen occasionally along Washington creek, but the streams in the neighborhood were too small to attract many of the birds. The only one taken was excessively fat, showing that there was an abundance of food, as would naturally be expected; but the Kingfisher appears to prefer larger streams as a whole, and does not wander far back along the smaller creek.

12. *Dryobates villosus villosus*. Hairy Woodpecker. Common everywhere thru the timber, and a number were taken. All were in fine plumage, and most of those secured were shot in the trees above camp.

13. *Dryobates pubescens medianus*. Downy Woodpecker. These little birds were common everywhere in the timber, and numbers were seen. They appear to have about the same habits the year around and are always trusting and confiding. They are one of the most abundant birds in this vicinity, taking the year as a whole, and are more numerous than in any other locality where I have ever collected. Forty-one specimens were taken.

14. *Melanerpes erythrocephalus*. Red-headed Woodpecker. These birds were met with as stragglers in the edges of the timber on both years, and one or two were taken around camp. Straggling flocks occurred along Hasty Creek, where the birds kept to the tops of the smallest trees. They were in company with the flickers, and like them, made long flights across the fields. Of twelve specimens, only three are adult, and, of the immature birds, the females appear to be slightly paler in color than the males. One immature bird shows a few red feathers on the crown and throat.

15. *Centurus carolinus*. Red-bellied Woodpecker. These woodpeckers occasionally came into the trees about camp, but most of them were found in the timber. One or two of the adults taken are in very highly colored plumage.

16. *Colaptes auratus luteus*. Northern Flicker. These birds were fairly common along the edges of the timber, and in the creek bottoms, but were wild and hard to secure. They did a great deal of flying back and forth between the hills, and the high trees above camp proved a tempting resting place for them. *Colaptes c. collaris* appears to occur here only during the fall and winter.

17. *Antrostomus vociferus*. Whip-poor-will. These birds were common both years, but were seen only a few times. Promptly at dusk they began to call, and sometimes half a dozen could be heard at once, in the different draws near camp. We always noticed that the birds began calling from the hillsides away from where we had hunted during the day, and so inferred that they flew ahead of us, and thus avoided being seen. Considerable time was spent in looking for them the first year, but none were taken. The second year as we were finishing supper one evening, a single bird flew into a big tree above camp, and sat there for a few seconds, chucking harshly. As it flew out it was shot. I have no doubt it was attracted by the unusual sight of the tent under the trees, and came down to investigate it.

18. *Chordeiles virginianus virginianus*. Nighthawk. Nighthawks were fairly common during both years, but not as much so as in a more open locality. The greater part of them past to the west of our camp, outside of the line of hills, and we noticed them often in the evenings in that direction. Sometimes, however, a flock would pass directly thru the camp, and several were taken in the daytime from the limbs, where they were resting until it was time for them to feed again.

19. *Chordeiles virginianus henryi*. Western Nighthawk. Three of the specimens taken in 1908 have been referred to this form.

20. *Chordeiles virginianus sennetti*. Sennett Nighthawk. Two specimens taken September 12, 1908. They were shot from a flock which past thru camp just at daylight, and remained to feed around the edges of the timber for a few minutes. This is the first authentic record of this species for the state, to my knowledge, but I think that they will be found to be regular migrants, at least during the fall. Others taken from the same flock were referred to *C. v. henryi*.

21. *Chaetura pelagica*. Chimney Swift. These birds were migrating daily during both years. Most of them past over high up going either south or southwest, but by getting up on the bare hills south of camp, we were able to observe them closer, as here they frequently came down almost to the ground. Sometimes a small flock would stop to feed around some clumps of trees near the base of one hill, and we secured several here. A south wind checkt their migration somewhat, but not entirely. They were seen more often during the forenoon and late afternoon.

22. *Archilochus colubris*. Ruby-throated Hummingbird. During the fall of 1908 these birds were fairly common, but the preceding year none were seen at all. They were feeding around the thistle patches and by walking around these, we secured a number. They were most active in the warmer part of the day, and were seemingly indifferent to the blazing heat of the sun. This is the only time that I have remarkt many of them in one locality within the state. We collected them with the aux, and after a bird was shot, it was usually a problem to find it in the dense tangle of weeds, briars, and thistles, above which they were feeding.

23. *Tyrannus tyrannus*. Kingbird. One taken September 18, 1908. This is rather a late record, as most of the birds leave about September 1. The bird taken was found in an old pasture, some distance from camp, and was the only one seen.

24. *Myiarchus crinitus crinitus*. Crested Flycatcher. A few birds of this species noted in the timber during the second year, and two taken.

25. *Sayornis phoebe*. Phoebe. Phoebes were found scattered along the more open portions of Hasty Creek, where they percht usually above the water. All those taken were fine specimens in fall plumage. Only a few were seen on each year, and all were observed in the same locality. During the spring and early summer, they are not so local in their distribution.

26. *Nuttallornis borealis*. Olive-sided Flycatcher. One bird taken each of the two years. They were silent, and were found on the edge of the timber in one of the draws near camp. This species appears to be a rare spring and fall migrant, in the vicinity of Lawrence.

27. *Myiochanes virens*. Wood Pewee. These birds were fairly common in the bottom lands along Washington Creek, and several specimens, principally in immature plumage, were taken.

28. *Empidonax flaviventris*. Yellow-bellied Flycatcher. One immature female taken September 14, 1908. These birds are rare migrants here, and I have always found them in the draws in the edge of the hills.

29. *Empidonax virescens*. Acadian Flycatcher. One taken September 15, 1908, was the only one noted. The time of the year, however, was rather unfavorable for the flycatchers, and only a small number of each of the other species was observed.

30. *Empidonax traillii alnorum*. Alder Flycatcher. One immature female, taken September 15, 1908, was the only one noted.

31. *Empidonax minimus*. Least Flycatcher. Two of these little flycatchers were taken in the draw back of camp. In the afternoons towards evening, these, and the other species of *Empidonax* found, were feeding in this draw, when everything was still, except for the shrilling of the cicadas. The flycatchers would fly a few feet, making an audible flutter with their wings, and then perching, remain still for perhaps five or ten minutes, so that it was very hard work to locate them. This probably accounts for the small number taken.

32. *Cyanocitta cristata cristata*. Blue Jay. Very common, both in the timber along the creek bottoms, and in the oaks along the side-hills. A large series of these birds was taken as the stomachs were wanted to determine the food habits. They were nearly all in very poor plumage, especially about the head. Some, however, were in perfect fall dress, and were very handsome. Around camp we found them shy; but in the mornings when we had gone, they always came down to investigate, and probably to pick up food among the camp refuse. In the timber, they were feeding upon acorns and ground beetles. All those taken the second year, were in much better plumage than the year before, showing that the season was farther advanced.

33. *Corvus brachyrhynchos brachyrhynchos*. American Crow. Crows were common everywhere. The side-hills and draws near camp are favorite nesting places with them in spring, and young crows were seen and heard continually. Most of them were in very poor plumage, and we only made eight skins. One morning I shot a crow on the wing, as it flew high over camp, and for the rest of the day, seven or eight of the birds lingered around the point of a hill, a short distance away, cawing and watching, as if wondering what had become of their companion.

34. *Quiscalus quiscula aeneus*. Bronzed Grackle. In Lawrence there is a large grackle roost to which the birds begin to resort in July, and by September are fully assembled. In the morning they start out in long lines over the country, in search of feeding grounds, and the vicinity of our camp, especially during the fall of 1908 was a favorite place with them. They usually came in about eight in the morning, and began the return flight about five in the afternoon. First we would see a few straggling flocks coming in from the northeast, and following these a long black line, undulating and twisting, always following the exact turns made by those in the lead, but preserving, on the whole, a straight course. They usually alighted in some clump of trees, and poured in until the limbs were black,

and the confusion of their notes filled the air like the tumult of a great waterfall. If they were startled, and all arose at once their wings made a loud roaring noise, and the birds wheeled around until decided which way to go. Usually in the early morning they fed for a time in the oak woods in the draws, but later on spread out in the cornfields in the bottoms. We secured quite a few of them by random shots into the large flocks. The adults were just completing the molt, but the young birds were in good plumage. A curious habit, alluded to above, was that of the long flocks following every dip and turn made by the leader. Frequently I have seen one flock following another at a distance of a quarter of a mile, suddenly dip downwards at approximately the same place, as that at which those in the lead had performed the same evolution. On one occasion, this led to disaster as one flock dodged under a wire, while the flock following miscalculated the distance, and one bird was struck down to the ground, stunned and disabled. I have noted the same habit in other species of the Icteridae: in *A. phoeniceus* and *E. carolinus*.

35. *Astragalinus tristis tristis*. American Goldfinch. Fairly common during both years. Usually they were seen flying overhead, but several times we encountered a flock near a ford on Hasty Creek where they came for water. Two, of the six taken, are immature birds in brownish plumage, and the rest are adults just beginning the molt.

36. *Spizella pusilla pusilla*. Field Sparrow. These little sparrows were in a bad state of molt, and some of them were hardly able to fly. We tramped them out of the weeds, on the hills to the south, and for a while I was uncertain as to their identity on account of their plumage. The first one secured, however, settled the matter. One partial albino was taken, having patches of white on the feathers of the scapulars, interscapulars, and rump. Three of the immature birds are in the juvenile striped plumage. They were seen only during 1908, none being encountered the previous year.

37. *Cardinalis cardinalis cardinalis*. Cardinal. All those taken were badly molting, and some of the adult males especially, were in very ragged plumage. A number of young were taken with dusky instead of red bills. Two were secured that had barely left the nest, and were just able to fly. One of these was taken September 19, 1907, and the other September 16, 1908, which indicates very late nesting for them. The birds were very shy and secretive, and were silent, except for their customary sharp call notes.

38. *Passerina cyanea*. Indigo Bunting. This species was common in the weed patches along the borders of the fields, and at the edge of the timber along the creeks. Quite a number were taken, both adults and young, the former being in a bad state of molt. One young bird, just out of the nest, was taken September 18, 1908. This is the first time I have noted such late nesting in this bird. The adult males were heard giving the flight song on several occasions.

39. *Spiza americana*. Dickcissel. One taken September 19, 1907, from a flock of three in a small marsh. A few others were seen flying overhead, but they were not at all common, and most of them had left for the south. None were noted the second year.

40. *Piranga erythromelas*. Scarlet Tanager. A few found in the bottom woods, along Washington Creek, working thru the trees with the other smaller migrants.

41. *Piranga rubra rubra*. Summer Tanager. Fairly common during 1907, but only a few seen during 1908. They were found in the oak timber only, and we heard their queer notes often, coming from a draw east of camp. Usually two were together, tho for what reason I could not guess.

42. *Riparia riparia*. Bank Swallow. A single bird taken from a small flock of other swallows September 19, 1907, was the only one noted.

43. *Vireosylva olivacea*. Red-eyed Vireo. This was the commonest of all the vireos, and was found in the timber everywhere. Great numbers of them were mixt in with the migrating flocks of warblers, and they also past thru the trees above camp. They gave their usual call note frequently, and it was possible to trace them up by that, as they were not at all wild. This is a common breeding species here.

44. *Vireosylva gilva gilva*. Warbling Vireo. This species was fairly common both seasons, and several were taken, mostly in the heavier timber. So far as noticed they were silent, and were found with the migrating flocks of warblers.

45. *Lanivireo solitarius solitarius*. Blue-headed Vireo. Three specimens of this bird were taken, and this is the first time that I have noted it personally in Kansas. They are probably a regular but rare migrant, occurring along the streams. Two of our birds were taken in 1907, and one the year following.

46. *Vireo griseus griseus*. White-eyed Vireo. This bird was found in the dense thickets on the hillsides, and was very hard to locate. We heard their notes and songs on every visit to these localities, but the birds themselves remained so well hidden, that we succeeded in getting them only after long watching.

47. *Vireo bellii bellii*. Bell Vireo. There were a few of these birds in the thickets on the brushy hillsides during 1908, but they were shy and hard to locate. Only one was taken, on September 15, 1908; but we heard their notes and an occasional song nearly every day.

48. *Mniotilta varia*. Black-and-White Warbler. One adult male taken September 14, 1908, from a flock of migrating warblers, and none others seen.

49. *Vermivora rubricapilla rubricapilla*. Nashville Warbler. This is a regular tho rare migrant in this vicinity. We found them during 1908, in the dense brush and tangled grape-vines along Hasty Creek, where they could be secured only by patient watching. They were very quick and active, and usually when seen were too close to shoot without entirely destroying them.

50. *Vermivora celata celata*. Orange-crowned Warbler. One taken September 14, 1908. The fall migration is rather a poor time for warblers in this vicinity, and only a few scattered examples of most of the species were observed.

51. *Compothlypis americana ramalinae*. Western Parula Warbler. Found in the heavy bottom timber along Washington Creek. Several specimens of this small warbler were secured from flocks of migrants, and more were seen on both years.

52. *Dendroica aestiva aestiva*. Yellow Warbler. One taken September 20, 1907, from a flock of other migrating Warblers and Vireos.

53. *Dendroica virens*. Black-throated Green Warbler. One bird taken September 16, 1908, from a small flock of warblers in the trees above camp. This bird appears to be of regular tho rare occurrence, during both spring and fall migrations.

54. *Seiurus aurocapillus*. Ovenbird. One taken from a considerable flock of warblers September 14, 1908, was the only one seen. The breeding birds had all left for the south.

55. *Oporornis agilis*. Connecticut Warbler. One taken September 14, 1908, in a brushy thicket near camp where it was in company with numerous other warblers. This bird is rather rare in this vicinity, and but few specimens have been taken.

56. *Geothlypis trichas brachydactyla*. Northern Yellowthroat. All of these

birds taken were found along a line of hedge thru a hay field. They were fairly common but were hard to secure, as they were silent and kept hidden in the thick base of the hedge. I saw the flight song given on one occasion. Those taken are intermediate in measurements between *brachydactyla* and *occidentalis*, but apparently belong to the former, as they agree closely with the eastern race in color, and the wings and tail do not average long enough for the western.

57. *Icteria virens virens*. Yellow-breasted Chat. These shy birds were fairly common along the hedges in the fields. They were entirely silent and we only secured them by beating the hedges carefully, one on each side. Usually they slipped along ahead of us to the end of the hedge, and then we could locate them. All those taken were exceedingly fat.

58. *Wilsonia pusilla pusilla*. Wilson Warbler. One taken in a hedge September 14, 1908. It is an immature male in fresh plumage.

59. *Wilsonia pusilla pileolata*. Pileolated Warbler. An immature female taken September 17, 1908, from the same locality as the preceding, is referable to this form. To my knowledge this is the first published record of the occurrence of this variety within the state.

60. *Setophaga ruticilla*. American Redstart. Rather rare both seasons. The nesting birds had nearly all left and only a few stragglers remained. We shot one that dropt into the creek, and while we were watching it, and debating how to secure it, a big bull-frog swam up from the bottom and gobbled the bird whole, disappearing with a splash, thus settling the matter and the bird as far as we were concerned.

61. *Dumetella carolinensis*. Catbird. Very common in the thickets on the hillsides, where we secured quite a series of them. One bird was still in the juvenile plumage, with rufous markings showing on the abdomen and lower breast.

62. *Toxostoma rufum*. Brown Thrasher. These birds were common in the thickets, and along a gully which ran thru camp. We secured a good series of them, and all were in clear, fresh plumage. They were rather shy, but were more easily secured than the smaller birds. While we were beating the thickets they frequently flew up into the tops of the smaller trees, and scolded us.

63. *Thryothorus ludovicianus*. Carolina Wren. During the first year the only birds of this species noted were seen along Washington Creek, more than a mile from camp; but in 1908, three or four had their haunts in a gully that ran past the camp, and we heard them every day. Usually at daylight a pair would waken us by their loud scolding notes just outside the tent, but later in the day they were more secretive, and we secured only one specimen after considerable trouble.

64. *Troglodytes aedon parkmani*. Western House Wren. Not common. A few found along stone fences and brush piles during 1908, and one taken. They were rather shy and silent, as usual at this time of the year, and could have been easily overlooked.

65. *Sitta carolinensis carolinensis*. White-breasted Nuthatch. Several of these birds were taken, all in the larger bottom woods along Washington Creek; but they are not at all common at any time here, and would be easily overlooked by one not familiar with their notes.

66. *Baeolophus bicolor*. Tufted Titmouse. Common everywhere in the timber. Several birds of the year and a good many adults were taken. These birds were not as noisy as they are in the winter.

67. *Penthestes atricapillus atricapillus*. Chickadee. These birds were abundant everywhere in the timber, and a large series of them was collected. They were

usually found in small flocks. The greater part of the specimens I referred to *P. a. atricapillus*, tho they do not agree closely with eastern specimens. The greater part of them are intermediates, verging toward the western form, *septentrionalis*, and in many cases it is difficult to decide where they belong. About eighty per cent can be referred to the eastern variety, and this is apparently the dominant breeding bird.

68. *Penthestes atricapillus septentrionalis*. Long-tailed Chickadee. Several birds of this variety were taken, and they appear to be of regular occurrence in this vicinity, as mentioned in the notes under the preceding variety. Ninety skins were made of the two varieties.

69. *Regulus calendula calendula*. Ruby-crowned Kinglet. On several mornings I noticed one or two of these birds feeding in some willows near the tent, and one immature female was taken September 18, 1908. None were taken during the preceding year.

70. *Hylocichla mustelina*. Wood Thrush. One taken September 20, 1907, was the only one seen. The rest had already gone south in the fall migration.

71. *Hylocichla fuscescens salicicola*. Willow Thrush. Two of these birds were taken, one September 12, and one September 16, 1908. They were found in rather open thickets, one being taken on the side-hill, and the other in the ravine near camp. I have one other specimen in my collection, taken September 28, 1907, in this same locality, and these three constitute the only records for the state to my knowledge. I have been confidently expecting to secure them sooner or later, however, as they have been taken so much further east.

72. *Hylocichla ustulata swainsonii*. Olive-backed Thrush. A single one taken September 17, 1908, was the only one seen. Thrushes, other than robins, were rare during both years, and only a few were taken.

73. *Planesticus migratorius migratorius*. American Robin. During 1907 robins were more abundant than the succeeding year, and were found in the thickets on the hillsides, and along the creeks. Some of those taken were still in the spotted juvenile plumage, but most of them had almost completed the molt to the adult plumage, some of the birds showing a full winter dress. All those taken the second year were much more advanced in molt, and in better condition than the year previous.

74. *Sialia sialis sialis*. Bluebird. Common in flocks of from six to a dozen along the country roads. These flocks mark family groups, and frequently contained spotted individuals and others just molting out of the juvenile plumage. Twenty-five specimens were taken.

Denver, Colorado.

CLIFF CLIMBING FOR PRAIRIE FALCON EGGS

By GEORGE RICHARDS

WITH TWO PHOTOS

CLIFF climbing can hardly be termed a sport in spite of its many thrills and pleasures. This is especially true when the climbers are amateurs and equipment limited. Even when a rare or interesting set of eggs leads one to make the attempt, his nerve suffers a queer sensation when he looks down the one

hundred feet of sheer rock wall to the sharp-edged stones below, and thinks what would happen to him if he should make a slip.

Such were our feelings when we stood peering over the side of a red sandstone cliff nearly one hundred feet in height and slanting in near the base. This cliff is situated among the foothills about twenty miles to the southwest of Denver, at the canyon known as Deer Creek. One of the party, Mr. Harold Durand, had noticed that for two years before, a pair of Prairie Falcons (*Falco mexicanus*) nested there; so, on this day, May 2, 1909, we resolved to explore the face of the cliff.

A little more than a third of the height from the bottom was a cave-like opening about six feet high, four wide, and three back. Here the falcon had located her nest, soon to be disturbed by this party of egg seekers, with Mr. Durand as climber to represent them.

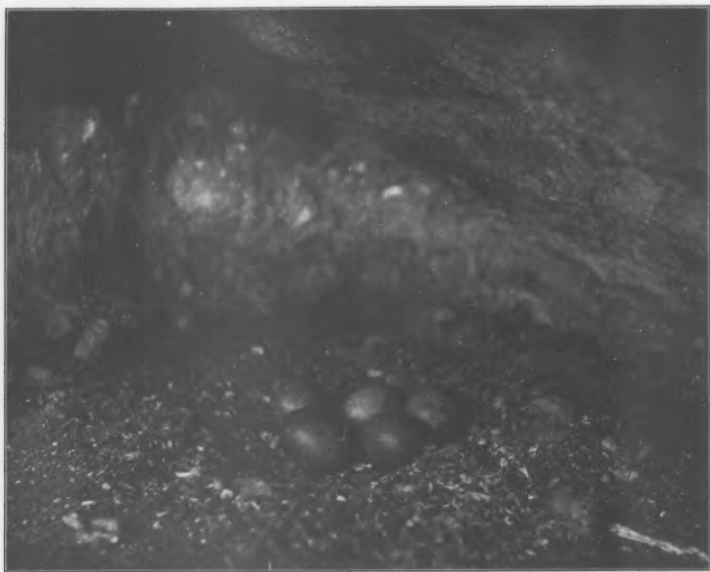


NESTING SITE OF PRAIRIE FALCON NEAR LITTLETON, COLORADO

As the rope went over the side of the cliff Mrs. Falcon could stand the excitement no longer and left the cliff protesting loudly. On looking over the edge the climber decided that he would rather climb up from the bottom than risk going over the top. Loops were tied in the rope about every ten feet so that he might rest. As he drew up opposite the opening, the cheering word came down to us, "five eggs." After a few pictures had been taken from below, the camera was sent up to the man in the cave for the photographing of the eggs. When this had been performed the camera returned and up went the egg box, each of the party below sending up some special directions, by wireless, as to the packing of the eggs. Now in order to correctly identify the eggs it was necessary to collect either or both of the birds. We had one shell left, and held our breath as Mrs. Falcon sailed over within range. The gun crackt. A piercing scream came from the bird.

She descended involuntarily to the earth. A shout of joy arose from every member to celebrate the end of a perilous but successful day. The eggs were well advanced in incubation; the average measurement was 2.03 inches. The reader's attention is called to the similarity of this nest to that described by Mr. Peabody in the November number of the CONDOR, 1907.

Littleton, Colorado.



NEST AND EGGS OF PRAIRIE FALCON, IN RECESS IN FACE OF SANDSTONE CLIFF

NESTING NOTES ON THE LUCY WARBLER

By M. FRENCH GILMAN

THIS trim little gray warbler with chestnut rump and crown patch (*Vermivora luciae*), might properly be termed the Mesquite Warbler, as his favorite shelter, home and playground seem to be furnished largely by the mesquite, and insects about the bloom of the tree loom large on his daily menu. It is very numerous about the mesquite groves and other growth along the Gila river bottom and seems to be the only warbler nesting in this locality.

The few notes here presented were made during the seasons of 1908 and 1909 at points along the Gila river in Arizona. Observations were made at Blackwater, 1362 feet elevation; Sacaton, 1275 feet; and Agua Caliente, 380 feet elevation. At the latter point, about 100 miles down the Gila river from Sacaton, I spent two weeks last April and found the Warblers more plentiful than at the other places mentioned.

The Warblers appeared at Blackwater and Sacaton, both seasons, the last of March, and soon began nesting. The full quota of birds seemed to arrive at once; as the first day I saw any—March 29—they were apparently as numerous as at any time afterwards. They are very active little sprites, flitting about usually in the extreme tops of the trees, whether mesquite, cottonwood or willow. They are most numerous in groves of mesquites not far from water, tho this may be from the fact that more trees and other cover are found not far from the river.

They utter a cheerful little call note, and during nesting, a rather pleasing song which recalls, without really resembling, that of the Yellow Warbler. The song has the effect of impressing the idea of extreme heat upon the listener, the same as that produced by the noise of the cicada on a hot, breathless day.

In nest-building the female seems to do all the work, her mate sometimes accompanying her on trips to and from the tree, but more frequently flitting about the tops of adjacent trees, occasionally uttering his little warble. One pair I watcht had a nest in a Texas Woodpecker hole in a palo verde tree about 15 feet from the ground. The female brought material to the nest three times in two minutes, then a seven minute interval, followed by two trips in three minutes. The male accompanied her on two trips and then made himself scarce. He indulged in no singing and both birds were silent, tho in many cases one or both birds gave the call note at intervals.

Shyness about the nest seems to be a characteristic of these birds. It was rarely I could see the bird leave the nest when approacht, and only two nests were discovered by flushing the female from the tree. In one case I brusht against a mesquite stump that had been cut back and had started a new growth, and the bird darted out so near the ground that I did not think much about a nest. But force of habit made me look carefully and a nest was discovered only 18 inches from the ground. By carefully concealing myself and waiting, the birds would return to the nest; but sometimes quite a wait was necessary.

The male birds were erratic in their behavior about singing. I found that they did more singing during nest-building than after completion or during incubation. They took good care not to sing in the nest-tree, preferring to confine their performances to trees some distance away. The male would frequently meet me several rods from the nest and flit from tree to tree singing at short intervals. Once I made a complete circuit of the nest tree and he accompanied me the entire distance. This was an exceptional case of course. While going from tree to tree and singing, the bird usually tried to keep hidden as much as possible and was rather successful in the effort. In about half of the cases coming under my observation the male bird sang somewhere near the nest. In the other half no song was heard, and in some instances no sound at all.

In three cases only, did the parent birds show what might be called the proper amount of solicitude when the nest was approacht. Some of them seemed rather touchy about their nests, leaving them if the nest were toucht even so lightly. The first nest I found was easy of access and I put my finger on the rim in order to depress it sufficiently to look inside. A later visit showed the nest deserted, tho it was about completed at my first trip. Another nest had one egg when found and was not disturbed other than by looking into it, but another visit showed it deserted. It may depend on the individuality of the bird, as another nest found containing one egg was not deserted, tho I had to enlarge the opening in order to see into it. Another incomplete nest was cut into and upon concealing myself the bird went on with her work. A later visit showed three eggs. It is either the personal equation, or else some other disturber visits the nest after the first time.

Four general types of nesting sites were noticed, in the following order of frequency: in natural cavities, under loose bark, in woodpecker holes, and in deserted Verdins' nests. Of 23 nests observed, 12 were in natural cavities, 4 under loose bark, 4 in woodpecker holes, and three in the Verdin's nests. Natural cavities were of various kinds. Some were where a limb had been broken off; others in the crack made by a large branch splitting from the trunk; and again a decayed spot furnished a sufficient hollow to conceal the nest. In all cases the site was in a sheltered or protected position; that is, the trunk leaned enough to shade the entrance from above. A mesquite tree was usually selected, tho others were taken. Of the nests observed, 15 were in mesquites, 5 in palo verde, 2 in ironwood, and one in catsclaw. And speaking of ironwood, I have the most profound respect for the perseverance, endurance and bill-power of the little Texas Woodpecker who drills his nest hole in one of these trees. After cutting into one with a pocket knife, I am willing to give him all possible credit.

The nests were usually not far from the opening of the cavity, three or four inches in most cases, tho exceptions were noticed. One nest was in a deep crack about seven inches from the entrance, and another was six inches deep. The woodpecker hole chosen must have been incomplete as the Warblers nest was only three inches below the entrance. The Verdins' nests used were male winter nests re-lined to suit Mrs. Warbler, and were about six feet from the ground.

Usually a tree standing out by itself was selected, and in no instance was the nest found in a thicket or dense grove. One bird had the home in a dead palo verde, the only dry tree I saw so used. Generally the home tree was not far from water, tho some nests I found were two and three miles from a drink.

The nests were small and compact and well hidden in their cavity. Only twice did protruding material betray the location. In one case nesting material protruded from a woodpecker hole, and the other was a bulky nest that showed from each side of a split branch. This last nest I thought must belong to a House Finch, but investigation showed warbler ownership. Nests were made of bark, weeds, and mesquite leaf-stems, and lined with fine bark, horse and cow hair, a few feathers, and sometimes a little rabbit fur. The site averaged six and one-half feet from the ground, the lowest being 18 inches and the highest 15 feet.

The earliest completed nest found was April 10, and the latest, May 15. Complete sets of 3, 4, and 5 eggs were found. In June and July, family groups of the Warblers were seen about the mesquite trees, tho at the present writing, July 16, the groups seem to be breaking up and scattering.

Sacaton, Arizona.

NOTES ON SOME BIRDS OF KERN COUNTY

By HARRY H. SHELTON

A MINING trip last summer (1908) took me into a region where I found bird life to be exceptionally interesting, for the reason that the country was in two district faunas. A desert-like country abruptly cut into by a mountain range caused the desert and mountain species to mingle in peculiar association. The notes obtained were mostly taken at random as I had but little time to devote

exclusively to bird work. But from the fact that this part of the country is a new field for the ornithologist, my notes altho incomplete will I trust be of interest.

We were about twenty-five miles northeast of Bakersfield, in Kern County, in a rocky little gulch of the Long Tom mining camp. This is in a chain of foothills known as the Poso Range, which is the dividing line between a vast expanse of barren buttes and mesas, and the big timber country of the Green Horn Range, a part of the Sierras. About the mine the country is rolling and barren except for numerous outcropping granite ledges. But to the north of us, with the increasing altitude, which is about 500 feet along the range, a scant growth of scrub oak commences to relieve the monotony of the country. Occasionally a spring would give nature a chance to decorate the dry surroundings with a clump of willows, and in such places a variety of birds would be found nesting.

In one instance when I was on my way to the Granite Station post office, a six mile walk from Long Tom, I made an unusual discovery. It was a hot day in August, about 110 in the shade, and visions of a tall cold glass had already commenced to make that desert thirst seem unbearable, when the quarrelsome chatter of several Kingbirds compelled me to change my course in the direction of a clump of willows standing alone in a little piece of desert country and shading a small herd of cattle. The cattle, a bunch of wild two-year-olds, stampeded in a body at my approach, causing considerable excitement among the bird residents. These proved to be of more than one variety. In the five trees, three of which were willows and two cottonwoods, I counted fourteen nests. Seven were of different species. The Kingbirds' I noticed first in the top branches of one of the cottonwoods; three families were in evidence, one brood still in the nest. A California Cuckoo next attracted my attention to one of the willows; and I found a nest belonging to this species, with the remains of a dead young one and some egg shells. It seemed probable that the bird seen was one of the parents, as the contents were of recent date. Evidently the mate had met death in some manner, with the result that the nest was deserted. The nest was six feet from the ground, placed on a large branch about five feet from the body of the tree. Several dead limbs and surrounding twigs gave it a sheltered appearance. In this same willow, where a mass of old leaves and dead branches had collected between the center limbs, was a nest of young Towhees. In the cottonwood with the Kingbirds were two Doves' nests, one with half-feathered young; and a Lark Sparrow's nest also contained young. In the remaining willows were two nests of the Bullock Oriole with the young about the trees, and three Doves' nests. And last but not least, in the center of the other cottonwood was a big black bunch that proved to be an old nest of a Red-tailed Hawk; and when I started up to investigate, out flopt a Barn Owl, which awkwardly circled into the air and laboriously flew in the direction of a dead oak far away on the range above. It was evidently just a good roosting place, for nothing denoting the presence of an owl family was seen.

Of course, such an unusual nesting occurrence was infrequent. Only in one other case did I find as many nests together. Two cottonwoods standing by the well at Long Tom contained sixteen nests, of which eleven were Bullock Oriole's; one Lark Sparrow's; two Kingbirds' with young; one Dove's nest and one House Finch with young. More than half of the Orioles' had been occupied that year and three contained young in July.

I found the Rufous-crowned Sparrow to be quite plentiful along the range, inhabiting the wild gooseberry thickets in the canyons and in such patches growing among the rock piles on the hills. On several occasions I noticed young birds with their parents, and recently occupied nests in the vicinity possibly belonged to this species. The birds were not uncommon, and owing to the bareness of the

country they select for a breeding place, it would be comparatively easy to locate their nests in the proper season.

The most conspicuous bird about us was the Rock Wren, and altho I found an occasional nest in a niche or crevice of a rock wall or boulder, their favorite haunts about the mines were the entrances to old diggings, shafts and tunnels where between the timbers and the wall was afforded fine shelter for a nest. In such places I found several nests, but all vacated. The birds were tame and would frequently roost between the rafters of our cabin. One little fellow was bold enough to come thru the roof of our kitchen and help himself to anything in his line. He seemed to know just the right time to call, for when I would return from the mine to prepare lunch, I would invariably get a glimpse of his tail feathers disappearing thru a hole in the roof; and the tell-tale footprints in the "hold-overs" of the previous meal gave evidence of the Rock Wren's doings. Many good things have been said of this bird and he is certainly deserving of them. His pleasing characteristics and inspiring song helpt much to leave me a pleasant memory of the comparative desolation of Long Tom.

Poso Creek, about three miles from Long Tom as the crow flies, is the real mecca for bird life of this region. At a point directly at the foot of the Long Tom gulch is the most picturesque part, as it passes thru a narrow gorge with perpendicular cliffs rising some three or four hundred feet in places. Huge boulders which in some decay have slid or dropt from the hills above, form the creek bed, and together with a thick growth of sycamores and cottonwoods with their handsome foliage, make a picture one would hardly imagine seeing in the dry barren country that bounds the creek on either side. A miniature stream with just enough water to give one a satisfactory drink, trickles down the rocky formation of the creek bed, but eventually disappears in the sand where it leaves the gorge.

From here on, the trees and thickets of blackberry vines, impenetrable patches of nettles and other underbrush, mark its course thru the buttes and mesas to the San Joaquin Valley. And from the pine wood country at its source at Poso Flat, to its termination in the San Joaquin, is a stretch of collecting ground that should reveal some surprizes for the ornithologist.

Thru the kindness of Mr. Grinnell the identity of a few species taken was made certain, particularly the new record for the Black-throated Sparrow. The following list includes a majority of the birds seen in the region of Long Tom.

Oreortyx pictus plumiferus. Mountain Quail. One was flusht on Pine Mountain three miles north of Long Tom. The species is very rarely seen as low as this, but is plentiful in the Greenhorn Range.

Lophortyx californicus vallicola. Valley Quail. Abundant, more so than I have ever seen them elsewhere in California. Not seen south of Poso Creek.

Zenaidura macroura carolinensis. Mourning Dove. Plentiful, breeding anywhere near water.

Cathartes aura septentrionalis. Turkey Vulture. Common.

Accipiter cooperi. Cooper Hawk. Seen once near Poso Creek.

Buteo borealis calurus. Western Red-tail. Common everywhere.

Buteo swainsoni. Swainson Hawk. Seen once.

Aquila chrysaetos. Golden Eagle. One day I saw a pair making great sweeps toward the earth from a terrific hight. They were almost directly above me and the performance was the greatest spectacle of flight I have ever witnest. They would poise for a second, close their wings and then shoot downward like meteors for a hundred feet or more; then swerve up, repeating the same thing over and over until they reacht terra firma. It seemed as tho they just did it for fun, one

trying to beat the other to earth. They separated upon reaching a short distance from where I was standing and disappeared over a hill. In a few minutes a familiar screeching whistle echoed up the canyon and, sneaking down to a turn some hundred yards below, I saw one of them perched on a cliff a hundred feet from me. I pictured a fine mounted specimen for my den. But then it is probably better that the gun had been left behind.

Falco peregrinus anatum. Duck Hawk. One seen about the cliffs above Poso Creek, and a female taken August 16 in the Long Tom gulch.

Falco sparverius. Sparrow Hawk. Common everywhere.

Aluco pratincola. Barn Owl. Common in the rocky canyons and about the mines.

Otus asio bendirei. California Screech Owl. Heard at Poso Creek.

Bubo virginianus pacificus. Pacific Horned Owl. Common along the Cliffs of Poso Creek and in the canyons of the foothills. A female taken August 14.

Speotyto cunicularia hypogaea. Burrowing Owl. Common south of Poso Creek.

Geococcyx californianus. Roadrunner. Common on Poso Range. A specimen taken July 19. In one of the large steel water-tanks at the mine I found two young birds which had fallen or jumped in for a drink and were drowned. There were four of these tanks, which proved to be death traps for many birds and mammals. Twice I picked out ground squirrels in a dying condition which had fallen or jumped into these half-filled tanks. Cottontails, squirrels, mice, bats and birds made up the list of unfortunates that came to grief in this manner.

Coccyzus americanus occidentalis. California Cuckoo. A few seen in willows at springs in the foothills.

Dryobates villosus hyloscopus. Cabanis Woodpecker. A few seen in the pine country at the head of Poso Creek.

Dryobates nuttalli. Nuttall Woodpecker. Fairly common. One taken at Long Tom.

Melanerpes formicivorus bairdi. California Woodpecker. Seen in pines at head of Poso Creek.

Asyndesmus lewisi. Lewis Woodpecker. Common on the oak flats on the north side of the Poso Range.

Chaetura vauxi. Vaux Swift. Common along Poso Creek where first seen September 16.

Archilochus alexandri. Black-chinned Hummingbird. Several seen on Poso Creek.

Calypte anna. Anna Hummingbird. Common along Poso Creek and about springs in the foothills.

Tyrannus verticalis. Western Kingbird. Breeding commonly.

Sayornis saya. Say Phoebe. Common; nests found about Long Tom on beams in old cabins and mills.

Sayornis nigricans. Black Phoebe. Fairly common along Poso Creek, and a few around Long Tom.

Myiochanes richardsoni. Western Wood Pewee. Breeding along Poso Creek.

Otocoris alpestris actia. California Horned Lark. Common everywhere.

Corvus corax sinuatus. Western Raven. About ten birds were seen all told, usually in pairs.

Corvus brachyrhynchos hesperis. Western Crow. Quite abundant along Poso Creek.

Sturnella neglecta. Western Meadowlark. Fairly common.

Icterus bullocki. Bullock Oriole. Common along Poso Creek and about

springs in the foothills. Beautifully constructed nests were found in barren gulches hung in wild tobacco plants not more than 5 to 8 feet high.

Euphagus cyanocephalus. Brewer Blackbird. Common along Poso Creek.

Carpodacus mexicanus frontalis. California Linnet. Abundant everywhere.

Chondestes grammacus strigatus. Western Lark Sparrow. Common everywhere; especially so along Poso Creek.

Passerculus sandwichensis alaudinus. Western Savannah Sparrow. A few seen near the head of Poso Creek and two taken.

Spizella breweri. Brewer Sparrow. Large flocks appeared in September on the oak-covered hills.

Amphispiza bilineata deserticola. Desert Black-throated Sparrow. Two birds together near the head of Poso Creek, and one was secured. This is a record for the species, being the first known instance of its occurrence inside the San Joaquin Valley.

Aimophila ruficeps. Rufous-crowned Sparrow. Fairly common on brushy hills and in canyons. Two specimens taken.

Zamelodia melanocephala. Black-headed Grosbeak. A few seen at Poso Creek.

Guiraca caerulea lazula. Western Blue Grosbeak. Two males seen at Poso Creek.

Piranga ludoviciana. Western Tanager. A few seen at Poso Creek in September.

Tachycineta thalassina lepida. Northern Violet-green Swallow. A flock of several hundred flew up the Long Tom gulch one evening and disappeared over the range. Two immature birds were secured.

Lanius ludovicianus gambeli. California Shrike. Fairly abundant about the foothills.

Vireosylva gilva swainsoni. Western Warbling Vireo. Seen occasionally at Poso Creek.

Vermivora rubricapilla gutturalis. Calaveras Warbler. One specimen secured in September, when the species appeared to be abundant about springs in the canyons.

Dendroica aestiva brewsteri. California Yellow Warbler. Fairly common at Poso Creek; occasionally seen at Long Tom.

Dendroica nigrescens. Black-throated Gray Warbler. A few seen in the latter part of September and one specimen taken.

Wilsonia pusilla chryseola. Golden Pileolated Warbler. Common along Poso Creek; occasionally seen around Long Tom.

Mimus polyglottos leucopterus. Western Mockingbird. A few seen in rocky canyons at Long Tom. Also at Poso Creek.

Salpinctes obsoletus. Rock Wren. Very common; nests plentifully about Long Tom.

Catherpes mexicanus punctulatus. Dotted Canyon Wren. Fairly common along Poso Creek; two taken.

Sitta carolinensis aculeata. Slender-billed Nuthatch. One seen running up the side of our cabin at Long Tom.

Baeolophus inornatus. Plain Titmouse. Fairly common along north side of Poso Range.

Psaltirparus minimus californicus. California Bush-tit. Fairly abundant in the foothills.

Poliottila caerulea obscura. Western Gnatcatcher. Very common about the hills and at Poso Creek.

Sialia mexicana occidentalis. Western Bluebird. A few small flocks seen in September along Poso Creek.

San Anselmo, California.

FROM FIELD AND STUDY

The Wilson Phalarope at Santa Barbara.—On the morning of the 30th of April, 1909, while scanning a flock of small sandpipers in the muddy flats near the railway track at Santa Barbara, my glass fell upon a bird which at the second or third glance I saw to be a Wilson Phalarope (*Steganopus tricolor*), a female in handsome plumage; and presently I discovered nearby her plainly drest small mate. In the afternoon I found the pair in the same place, and watcht them at short range as long as I pleased. Both birds were still present May 2d, 4th, and 6th. On each of the next three days I saw the male only, and on the 10th I left home for two months. It amused me to notice how to the very last I involuntarily thought of the bright large female as the male, and *vice versa*.—BRADFORD TORREY, *Santa Barbara, California*.

Limonites ruficollis in Alaska.—I have bought from time to time a good many bird-skins of Mr. A. H. Dunham, of Nome, Alaska. He usually spends his winters in his old home at Santa Haven, Conn., leaving Alaska early in the autumn. He has on several occasions brought back with him a number of rather rare birds, such as the Kittlitz Murrelet, Emperor Goose, Spectacled Eider, etc.

On his last trip he had a large number of skins, some rare ones and some of little interest. Among the lot were a pair of Sandpipers and two of their young, which he had shot at Nome, July 10, 1908. He "threw these in" with the other birds I bought, saying, that he "remembered my telling him to collect a few nestlings." The skin of the female was such a miserable, greasy thing and so wretchedly made (most of Dunham's skins are very poor) that I threw it away without examining it. On looking over these Alaskan skins one day, I found that I couldn't make out what this Sandpiper was. I sent the remaining adult skin to Mr. Outram Bangs, who sent it to Professor Ridgway, who identified it as *Limonites ruficollis*.

This is, I think, the first record of this bird being taken in Alaska, and that it bred there is also interesting.—JOHN E. THAYER, *Lancaster, Mass.*

The Allen Hummingbird at San Diego in Winter.—On January 26, 1908, I found an adult male Allen hummer (*Selasphorus alleni*) in a small hollow in the city park at San Diego, feeding upon the blossoms of the tree tobacco. The place was close upon the Fifth Street sidewalk, within a five minutes walk of my hotel, and for three weeks I saw the bird almost daily. To be precise, I listed it fifteen days between the date of its discovery and the 16th of February, the day on which I left the city. On one occasion Mr. Frank Stephens was with me. I am told that there is no previous record of the wintering of this hummingbird on the mainland of California.—BRADFORD TORREY, *Santa Barbara, California*.

Red-eyed Cowbird at Sacaton, Arizona.—May 28, 1909, I noticed one morning a new-looking bird strutting about the barnyard; and a near approach showing his flaming eyes, I decided he was a Red-eyed Cowbird. Later in the day I saw him again, this time accompanied by a mate to whom he was very attentive. I collected him, the female escaping, and found he was the Red-eyed Cowbird (*Tangavius aeneus involucratus*). I saw the female several times the next two or three days, and June 1, a pair of the birds were in evidence. Later, by several days, I noticed a male making violent love to some lady Dwarf Cowbirds, but they were not responsive to his courtship. I have seen the pair nearly every day since, and they are here yet, July 16. I am certain of having seen at least two pairs and believe there were six pairs of them.

This locality is rather far from their reputed range, and I have been carefully examining all the nests of the Sonoran Redwings here to see if the cowbirds are breeding. As before stated they showed indications of mating, and it would be very interesting to determine if they ever do breed in this territory.

Since recording these notes I have received the July *Auk*, and notice Mr. S. S. Visher, Carnegie Laboratory, Tucson, Arizona, reports capturing a male, and seeing several others of the birds.—M. FRENCH GILMAN, *Sacaton, Arizona*.

The Blue-winged Teal at Santa Barbara.—Between January 21 and May 1, 1908, I saw drakes of this species (*Querquedula discors*) on fourteen days and in two places, an artificial lake at Hope Ranch and the ditches and pools near the freight station of the Southern Pacific Railroad at Santa Barbara. The two places are perhaps four miles apart. I cannot assert that I ever saw more than one bird in either place, tho on several occasions the drake was accompanied by a female which it seemed fairly certain was of the same species. The following winter the birds were again in both places, and were listed seven times between December 6, 1908, and March 16, 1909. I had no doubt that at least one male spent both winters at Hope Ranch, where

beds of tules and cat-tails furnish it abundant cover, so that its being seen on any given visit was largely a matter of accident.—BRADFORD TORREY, *Santa Barbara, California.*

Notes from Placer County.—I note a query you make in the last CONDOR regarding the nesting of the Western Martin (*Progne subis hesperia*). The only places I have met them in this county—nesting—were at the pottery in Lincoln and at the Court House at Auburn. There appear to be but a few pairs at each place. I was told that from three to eight pairs nested at Lincoln for about twenty years, but succeeding years do not see them increasing in numbers, altho the nests were not disturbed.

Mr. Ray's "correspondence" (CONDOR XI, page 141) is all right, but does not affect us here; but we have the dove. Hunters have been slaughtering the doves for two weeks and still I know of several nests today (August 1) on my place which contain young birds. A large number of doves here lay their first set of eggs on the ground in grain fields, and many are destroyed by cats and more by the mowing machine. Frequently the dove will remain on the nest until the knives kill her. The dove seems to hold its own in numbers, but it seems a pity to begin killing so early—at least. Each year the various gun clubs make a bigger spread over their first dove shoot.—ERNEST ADAMS, *Clipper Gap, California.*

The Ruddy Turnstone at Santa Barbara.—On the 26th of July, 1909, while watching the motions of a Black Turnstone on the beach at Santa Barbara, I suddenly found my glass resting on two Ruddy Turnstones (*Arenaria interpres morinella*) the first that I had ever seen on the Pacific Coast. They were turning over pieces of seaweed, in company with their black relative, —seeming to have no color prejudice,—and allowed me every opportunity to admire their patchwork costume and the bright deep orange-red color of their legs. And by the bye, I could wish that there were a law requiring all makers of ornithological manuals and hand-books to include this point—the color of legs and feet in live specimens—in their technical description of at least all water birds. It is too often omitted—for lack of knowledge presumably. But it should be the duty of such authorities to have knowledge.—BRADFORD TORREY, *Santa Barbara, California.*

Notes on the Nesting of the Bank Swallow.—In answer to the query of our Editor in the last issue of the CONDOR as to nesting data on the Bank Swallow (*Riparia riparia*), I submit the following notes from personal observation.

A small colony was nesting in the bluffs near the long wharf, Port Los Angeles, during May and June, 1907. Three pairs were nesting in a bank near a drain ditch about one-fourth mile from Hansen's old slaughter house, Los Angeles, in May, 1907. A large colony was nesting on Dead Man's Island, and in the banks near the lumber yards at San Pedro in April, May, and June, 1908 and 1909. A colony was nesting along the coast near Huntington Beach; observed June 13, 1908, and May 28, 1909.—D. I. SHEPARDSON, *Los Angeles, California.*

The Sage Thrasher at San Diego.—On the 3d of February, 1908, I was surprised to find a Sage Thrasher (*Oroscoptes montanus*) in the most frequented corner of the large city park at San Diego. It remained there till February 16, and I know not how much longer, as that was my last day in the city. I lookt for it daily, and only five times failed to find it,—and then only for lack of patience, I have no doubt. My only previous acquaintance with the species was on the desert at Tucson, Arizona, where it was wintering in good numbers.—BRADFORD TORREY, *Santa Barbara, California.*

Sparrow Hawk Nesting in a Bird Box.—It is a common experience of the western ornithologist to find birds of desert or otherwise treeless regions, resorting to all sorts of expediences for nesting sites.

The resourceful Flicker is responsible for some unusual records and we expect something of him in this line. I was, however, surprised this summer by a Sparrow Hawk (*Falco sparverius*) who occupied, with his family, a pigeon box on the west end of a cow barn in a very populous barn yard in Modesto, California. Another box, but a few feet away, housed a family of pigeons at the same time.

Hudson, in his "Naturalist in La Plata," discusses the ability that non-predatory birds display in discriminating between Falconidae dangerous to themselves and those that are either unable or indisposed to do them harm. We have here, possibly, a case of discrimination on the part of the pigeon and of resourcefulness on the part of the Sparrow Hawk.—LOVE HOLMES MILLER, *Los Angeles, California.*

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EDITORIAL NOTES AND NEWS

AS CONDOR readers make use of the Ten-Year Index, they are sure to run across errors. We hope errors are few, but it is safe to say there was never yet published a perfect index or catalog. The compiler of our Index, Mr. H. B. Kaeding, proposes to issue an errata-slip, to be mailed to all members and subscribers. And to the end that this may approach completeness, he invites everyone to send to the Editor of this magazine a memorandum of whatever errors have been found, whether one or many.

As announced by our Business Manager on inside back cover of present issue, Cooper Club members are entitled to space in THE CONDOR to use in letting their wants be known in the line of exchanging books, photos or specimens. We hope this feature of our magazine will be recognized, and made use of.

We assume the privilege of quoting the following passages of general interest, from a personal letter (dated August 20) from Dr. Chas. W. Richmond, Acting Curator of Birds in the United States National Museum at Washington: "We are going over the new building next week! After living for 20 odd years on this gallery, we are about to move into new quarters, where all of our collections can be brought together. When the Division of Birds was moved from the old South Tower (five flights up from the ground) to its present quarters, our catalogs had about 95,000 entries, and the collections were all contained in cases on the gallery, ex-

cept the large species which were stored in the basement. Since that time we have expanded until the eggs occupied one room (in 70 cases) in a far corner of the "old" Museum building; the Picarian and some other groups filled a room in the north tower of the Smithsonian building; and the waders, water birds, game birds, and other large birds filled the west basement. Our catalog entries now run up into the 212,000's, meaning that we have received over one hundred thousand specimens in this time. In a few weeks we will have all our material together, including about 12,000 duplicates which have been in storage for several years. We are very much elated over the occasion!" And naturally enough. We offer congratulations not only to those immediately connected with the National Museum, but to ornithologists in general. For our national collection of birds is by far the most important one, as far as America is concerned, in existence, as it has been used most widely. Its adequate housing has been a desideratum for many years; and now that this is accomplished, the accessibility and consequent value to bird people at large becomes still greater.

A correspondent in another column of this issue describes a published Code of Colors which it is urged is an improvement in its method of designation over that employed by Ridgway in his widely used "Nomenclature of Colors." We have just secured a copy of the new work in question. Its sole point of superiority, to our mind, lies in the much greater number of tints and shades presented. But their designation by number is certainly not an advantage. For a color description would only be comprehensible in the presence of the Code itself, unless a person had had long enough experience with it to remember the color-groups by number. "Lavender" brings to one's mind a more vivid realization of the tint so called, than "496"! So with russet (= "103"); sea green (= "382"); orange-vermillion (= "81"); etc. Of course the new system *could* be mastered. And it *might* lead to more exact color-definition in scientific descriptions. But at the same time it would render these descriptions useless to the multitude of amateurs who, as a rule, would not bother to secure a copy of the key. We still hope for an enlarged nomenclature of colors, after the style of Ridgway's. We have heard a rumor to the effect that Ridgway, himself, is at work on a new and improved edition of his book. This would be ideal. If an American nomenclature does not materialize shortly, we will *have* to use the Frenchman's "Code des Couleurs"; for the few copies of Ridgway's old "Nomenclature of Colors" accessible are just about worn out; and, as previously hinted, fading is feared.

A useful feature of our magazine is the publication from year to year of the "Directory of Members of the Cooper Ornithological Club", as in the present issue. Members who see where corrections should be made, should inform us accordingly, so that our card list can be kept up to date, preparatory for next year's Directory.

PUBLICATIONS REVIEWED

THE BIRDS OF WASHINGTON | A Complete, Scientific and | Popular Account of the 372 Species of Birds | Found in the State | By | WILLIAM LEON DAWSON, A. M., B. D., of Seattle | Author of "The Birds of Ohio" | assisted by | JOHN HOOPER BOWLES, of Tacoma | Illustrated by more than 300 original half-tones of birds in life, nests, | eggs, and favorite haunts, from photographs by the | author and others. | Together with 40 drawings in the text and a series of | full-page color-plates. | By ALLAN BROOKS | ——— | Large Paper Edition | with photogravures and special photographs. | Sold only by subscription. | ——— | Volume I [—II] | ——— | Seattle | The Occidental Publishing Co. | 1909 | All rights reserved. — large 4to, vol. I: 5 ll., pp. i-xviii, 1-458, 3 ll.; vol. II: 5 ll., pp. i-vi, 459-996, 4 ll.; illustrations as indicated in title.

This long expected work reached us in August, a month of dullness to those who are compelled by circumstances to pass the season in the office, far from the refreshing mountains and forests. In our case, no more pleasurable, vivifying sensation ever pervaded us than when we had unpacked the two massive volumes and began to cut and turn the pages. The wonderfully clear scenic views, the accurate bird portraits, the vivid accounts, all tended to bring us thrillingly close to the realities depicted.

"The Birds of Washington" is the most impressively adorned bird book we have ever handled. From the fly-leaves, with their unique gull-pattern to Brooks' beautifully rendered Duck Hawk portrait, the work is an ideal of artistic taste and elegant book-making.

The text is chiefly popular in style, the technical matter being condensed into brief descriptions, and statements of range. A set of identification keys, prepared by Lynds Jones, is appended to Volume II. The numerous life histories are well told; many of them we recognize as the results of Bowles' careful field work. In fact a large part of the scientific value of the work was evidently contributed by this observer, as fully acknowledged by the author in the introduction.

The accounts of species are vivacious portrayals of their subjects, in the pleasing Dawsonian style. They are chuck full of clever allusion, from Bobby Burns to the Bible. As is clearly explained by the author the book is written to meet the approval of the majority of its readers. Probably 90 percent of the subscribers are very slightly or not at all familiar with previous ornithological literature. It looks a trifle out of place to announce the book as a "complete, scientific" as well as popular treatise, altho we recognize this as customary with publishers. The impression is satisfactorily corrected, however, by the author, who in

the preface shows his attitude to be one of commendable modesty.

The State of Washington is part of a region of wonderful zonal and faunal diversity and for the working out even of the rougher distribution of its birds, a vast amount more of field work will be necessary. While the author is clearly not in sympathy with unlimited collecting of specimens, he exhibits the proper attitude in his having overcome his qualms in many cases, by resorting to the gun to secure proper identification of species. We would suggest that with such birds as the Red-wings, Song Sparrows, Savanna Sparrows, and Jays, collecting in quantity will be necessary before their statuses are satisfactorily worked out. Such work as this (besides also the very large biographical phase of ornithology) awaits the activities of the Caurinus ("northwestern") Club, to which body of ornithologists the "Birds of Washington" is dedicated.

We feel that what we have tried to say in praise of Dawson's "Birds of Washington" is quite inadequate. There is within us a growing feeling of resentment, not towards the author, but towards the "fate" that lead Mr. Dawson to select Washington for his field of ornithological labors, rather than *California*!

—J. G.

MR. LOVE HOLMES MILLER has recently named* a new fossil bird from California under the title: PAVO CALIFORNICUS, A FOSSIL PEACOCK FROM THE QUATERNARY ASPHALT BEDS OF RANCHO LA BREA. The locality is near Los Angeles where have also been found other interesting bird remains yet to be described. In association with these fossil birds have been unearthed such mammalian forms as the saber-tooth tiger, and a lion even larger than the present-day African lion. The new peacock is recognized from a tarso-metatarsus bearing a spur-core, as in males of the common domesticated peacock. The fossil material is minutely described by the author, and compared with its persisting allies.

"Students of Ornithology have in general laid minor stress on paleontological evidence in the determination of centers of distribution." This has been of necessity, for very little fossil material has been found representing existing bird groups. The discovery of a peacock, therefore, so far from the present native range of the family (the Indian Region) assumes a very large importance. Fossil peacocks have been found previously in Europe and India. Because of the still imperfectly disclosed record, Mr. Miller refrains from advancing any theories as to the course of dissemination of the group, or its place of origin.

As to the influences which have resulted in the disappearance of the phasianines from our fauna, while the quails are today so abundantly

* Univ. Calif. Publ. Geology V, pp. 285-289, pl. 25; issued Aug. 14, 1909.

represented, the author suggests that a change in physiographic conditions may be called into account. Thus a forested area, more like the jungles of India, may have preceded the present-day treeless condition. As the latter condition became prevalent, conspicuous birds dependent upon cover would naturally fall prey to such animals as the coyotes.

It is, of course, not known that *Pavo californicus* was ornately endowed, as in the existing peacocks. But the inference is that it was. Unless the feather development could be adapted or modified, it would become an impediment to cursorial power. In this connection Mr. Miller asserts his belief that the great length of the rectrices in the Roadrunner are "unquestionably of use in guiding the swift movements of the bird in its efforts to escape enemies, or in pursuit of its active prey." Our own observations would scarcely lead to this conclusion, altho we would hesitate to ascribe any other function to the Roadrunner's elongated tail.—J. G.

CORRESPONDENCE

Editor THE CONDOR:

The July-August number of THE CONDOR was received a day or two ago and I noted among the editorials one in which you state the need of a new manual of colors, and the bad state of your copy of Ridgway's Nomenclature.

I have just received today a book called: *Code des Couleurs*, a l'usage des Naturalistes, Artistes, Commerçants et Industriels. 720 échantillons de couleurs classés d'après la méthode Chevreul simplifiée, par Paul Klincksieck et Th. Valette; Paris, 1908. It can be had from G. E. Stechert & Co., 129-133 West 20th St., New York, for \$2.58 postpaid.

I think it is a *better* color book than Ridgway's, barring the fact that it is written in French and has a different color nomenclature. The book has 25 plates of blockt colors, like Ridgway's, 720 blocks.

"Ce Code doit sa naissance aux Champignons. Malgré ce point de départ, son application n'est nullement limitée à ce sujet; il doit au contraire trouver son emploi dans toute circonstance où l'on a besoin de préciser une désignation de couleur."

There are 32 pages of text in which is taken up: (Pt. I) 1. Origine du Code des Couleurs. 2. Mode d'emploi du C. C. 3. Solidité des Couleurs et du papier du C. C.; and (Pt. II) 1. des couleurs au point de vue physique. 2. Sources de lumière.—Lumières colorées. 3. couleurs matérielles ou pigments colorés. 4. Classification des couleurs. 5. Code des Couleurs à l'usage des naturalistes. 6. Confection du Code des Couleurs. 7. Examen des couleurs complémentaires. Contrastes.

The colors are on heavy paper, and I think the book is more durable than Ridgway's.

There are 62 colors under *vert bleu*. The system of *numbering* is just as convenient and sensible as Ridgway's *names*. There is nothing, I think, significant or advantageous in writing *Van Dyke Brown* instead of *Orange 118*.

The authors express the hope that some system of color nomenclature may become international, and I don't see why a system like this is not pretty good.

F. GRINNELL, JR.
Pasadena, Calif., July 27, 1909.

Directory of Members of the Cooper Ornithological Club

Revised to August 1, 1909.

(Residence in California unless otherwise stated. Year following address indicates date of election.)

HONORARY MEMBERS

Belding, Lyman, Stockton. 1896.
Merriam, Dr. C. Hart, 1919 16th St., Washington, D. C. 1909.
Ridgway, Robert, 3413 13th St., N. E., Brookland, D. C. 1905.

ACTIVE MEMBERS

Adams, Ernest, Box 21, Clipper Gap, Placer Co. 1896.
Alexander, Annie M., 1006 16th St., Oakland. 1908.
Anderson, Malcolm P., Menlo Park. 1901.
Appleton, J. S., Simi, Ventura Co. 1901.
Arnold, Dr. Ralph, 726 H. W. Hellman Bldg., Los Angeles. 1893.
Bade, Wm. Frederic, 2616 College Ave., Berkeley. 1903.
Bailey, Henry F., 94 Pacific Ave., Santa Cruz. 1902.
Bailey, H. H., 321 54th St., Newport News, Va. 1903.
Bailey, Vernon, Dept. of Agriculture, Washington, D. C. 1904.
Bales, Dr. B. R., 151 West Main St., Circleville, Ohio. 1906.
Barnes, R. Magoon, Lacon, Ill. 1908.
Barrows, Prof. Walter B., Box 183, East Lansing, Mich. 1909.
Bay, J. Cliff, Ingot, Shasta Co. 1903.
Beal, Prof. F. E. L., Dept. Agriculture, Washington, D. C. 1904.
Beck, Rollo H., Berryessa. 1894.
Bennett, R. H., Room 503, 149 California St., San Francisco. 1909.
Bent, A. C., Taunton, Mass. 1909.
Birdseye, Clarence, Biological Survey, Washington, D. C. 1909.
Bishop, Dr. Louis B., 356 Orange St., New Haven, Conn. 1904.
Black, Lester, Bloomington, Ind. 1908.

- Blain, Merrill W., 1321 Glendale Ave., Tropic. 1909.
- Bliss, J. G., 3281 Briggs Ave., Alameda. 1908.
- Bohlman, Herman T., 46 N. 9th St., Portland, Ore. 1903.
- Bolander, L. P., Jr., 462 Fair Oaks St., San Francisco. 1907.
- Bolt, B. F., 1421 Prospect Ave., Kansas City, Missouri. 1909.
- Bowles, Chas. W., Kerby, Josephine Co., Ore. 1903.
- Bowles, J. H., 401 So. G St., Tacoma, Washington. 1903.
- Brewster, William, 145 Brattle St., Cambridge, Mass. 1904.
- Brooks, Allan, Okanogan Landing, Br. Columbia, Canada. 1906.
- Bryan, Wm. Alanson, Bishop Museum, Honolulu, Hawaiian Islands. 1905.
- Burnham, Dr. Clark, 2335 Warring St., Berkeley. 1907.
- Burnham, Mrs. Clark, 2335 Warring St., Berkeley. 1907.
- Burns, Frank L., Berwyn, Pa. 1909.
- Carpenter, Nelson K., Box 127, Escondido. 1901.
- Carriger, Henry W., 200 Devisadero St., San Francisco. 1895.
- Chamberlain, Willard, 226 S. Bunker Hill St., Los Angeles. 1906.
- Chambers, W. Lee, Santa Monica. 1897.
- Chapman, Frank M., American Museum Natural History, Central Park, New York, N. Y. 1903.
- Childs, John Lewis, Floral Park, N. Y. 1904.
- Clifton, H. T., 871 N. Lake Ave., Pasadena. 1904.
- Coale, Henry K., Highland Park, Ill. 1906.
- Cohen, Donald A., Alameda. 1894.
- Colburn, A. E., 744 S. Broadway, Los Angeles. 1905.
- Cooper, Jas. S., care F. S. Cooper, Haywards. 1903.
- Craven, Jesse T., 811 Roosevelt Ave., Detroit, Mich. 1909.
- Currier, Ed. S., P. O. Drawer 21, St. Johns, Multnomah Co., Ore. 1904.
- Daggett, Frank S., 109 South Elmwood Ave., Oak Park, Ill. 1895.
- Davis, Evan, Orange. 1894.
- Davis, J. M., 1438 7th St., Eureka. 1908.
- Dawson, W. Leon, 5810 16th Ave., N. E., University Sta., Seattle, Washington. 1906.
- Dean, W. F., Three Rivers. 1901.
- Deane, Ruthven, 135 Adams St., Chicago, Ill. 1904.
- Deane, Walter, 29 Brewster St., Cambridge, Mass. 1907.
- Dearborn, Ned, Biological Survey, Washington, D. C. 1905.
- D'Evelyn, Dr. F. W., 2103 Clinton Ave., Alameda. 1905.
- Dixon, Joseph, Palo Alto. 1904.
- Duprey, H. F., 919 Morgan St., Santa Rosa. 1906.
- Dutcher, Wm., 525 Manhattan Ave., New York, N. Y. 1905.
- Dwight, Dr. Jonathan, Jr., 134 W. 71st St., New York, N. Y. 1904.
- Eastman, Lieut. F. B., 10th Inf., Fort Benjamin Harrison, Ind. 1904.
- Emerson, W. Otto, Haywards. 1894.
- Esterly, Prof. C. O., Occidental College, Los Angeles. 1908.
- Ferry, John F., Field Museum, Chicago, Ill. 1907.
- Finley, Wm. L., R. F. D. 1, Box 60, A, Milwaukie, Ore. 1900.
- Fisher, Dr. A. K., Dept. Agriculture, Washington, D. C. 1904.
- Fisher, Prof. W. K., Box 77, Palo Alto. 1900.
- Planagan, John H., 392 Benefit St., Providence, R. I. 1904.
- Follett, Richard E., 84 State St., Boston, Mass. 1909.
- Fowler, Frederick H., Palo Alto. 1901.
- Fuertes, Louis A., Cornell Heights, Ithaca, N. Y. 1904.
- Gane, Henry Stewart, Santa Barbara. 1903.
- Gault, Benj. T., Glen Ellyn, Ill. 1905.
- Gay, Harold S., Minas Bonanza y Anexas, via Saltillo, Bonanza, Zacatecas, Mexico.
- Gifford, Edw. W., 3256 Briggs Ave., Alameda. 1904.
- Gilman, M. French, Sacaton, Ariz. 1901.
- Goldman, E. A., Dept. of Agriculture, Washington, D. C. 1900.
- Goldman, Luther J., Orosi. 1908.
- Gould, Jos. E., 5 Clifton St., Norfolk, Va. 1909.
- Grant, Chapman, Williamstown, Mass. 1905.
- Grey, Henry, Box 86, R. 2, Mission Valley, San Diego. 1901.
- Grinnell, Joseph, Museum Vert. Zoology, University of California, Berkeley. 1894.
- Groesbeck, Charles E., Ocean Park. 1901.
- Hanford, Forrest, 1363 11th St., Oakland. 1909.
- Hann, H. H., Mt. Hood, Ore. 1909.
- Hanna, Wilson C., Box 146, Colton. 1902.
- Harris, R. Park, care Wm. Wood, Renton, Washington. 1909.
- Hawver, Dr. J. C., Box 214, Auburn. 1909.
- Hazard, R. G., Peace Dale, R. I. 1909.
- Heinemann, Oluf J., 1532 Fulton St., San Francisco. 1908.
- Heller, Edmund, Riverside. 1894.
- Henderson, Hon. Junius, Box 398, Boulder, Colo. 1909.
- Hersey, L. J., 2121 West 34th Ave., Denver, Colo. 1909.
- Holland, Harold M., Box 515, Galesburg, Ill. 1901.
- Hoover, Theodore J., 8 Prince Edwards Mansions, Palace Court, Bayswater, London, W., England. 1898.

- Howard, O. W., Box 1177, Los Angeles. 1895.
 Howell, Alfred Brazier, Catonsville, Md. 1908.
 Howell, B. F., Jr., R. F. D. 1, Boonton, N. J. 1909.
 Huey, Lawrence, 1618 Main St., San Diego. 1909.
 Hunter, J. S., Union Hotel, San Mateo. 1903.
 Illingsworth, J. F., 2201 Harvard Ave., N., Seattle, Wash. 1896.
 Ingersoll, A. M., 832 5th St., San Diego. 1895.
 Isham, C. Bradley, 30 E. 63rd St., New York, N. Y. 1909.
 Jacobs, J. Warren, 404 S. Washington St., Waynesburg, Pa. 1909.
 Jackson, Willis H., Pescadero. 1901.
 Jay, Alphonse, 1622 Pennsylvania Ave., Los Angeles. 1901.
 Jay, Antonin, 1622 Pennsylvania Ave., Los Angeles. 1901.
 Jesse, Dr. R. L., Philo, Ill. 1909.
 Jewett, Stanley G., 541 Lexington Ave., Portland, Ore. 1909.
 Johnson, Myrtle E., National City. 1908.
 Jordan, Dr. David Starr, Stanford University. 1902.
 Judson, W. B., 404 Mason Opera House, Los Angeles. 1894.
 Julien, Miss Lillian M., Yreka, Siskiyou County. 1901.
 Kaeding, Geo. L., Eureka, Nevada. 1903.
 Kaeding, Henry B., 1146 Hobson St., Los Angeles. 1895.
 Keeney, Ashby H., Santa Barbara. 1904.
 Kellogg, Prof. Vernon L., Stanford University. 1901.
 Kessing, Lawrence R., 1430 Santa Clara Ave., Alameda. 1899.
 Keyes, Chas. R., Mt. Vernon, Iowa. 1900.
 Kimball, H. H., 1527 M St., Fresno. 1909.
 Knickerbocker, Chas. K., 503 Western Union Bldg., care Griffin Wheel Co., Chicago, Ill. 1905.
 Kohler, Louis S., 98 Watsessing Ave., Bloomfield, N. J. 1909.
 Lamb, Chester C., 549 West 43rd Place, Los Angeles. 1899.
 Law, J. Eugene, Hollywood. 1900.
 Lelande, H. J., City Hall, Los Angeles. 1897.
 Linton, C. B., 1756 Pine Ave., Long Beach. 1906.
 Littlejohn, Chase, Redwood City. 1909.
 Loomis, Leverett M., Cal. Acad. of Sciences, San Francisco. 1902.
 Love, Chas. A., 3353 22d St., San Francisco. 1901.
 Luce, Geo. W., Haywards. 1904.
 Luther, Clarence H., 8 McElroy Bldg., Fayetteville, Ark. 1909.
 Mailliard, Ernest C., care Bank of California, San Francisco. 1909.
 Mailliard, Jno. W., 300 Front St., San Francisco. 1894.
 Mailliard, Joseph, 300 Front St., San Francisco. 1895.
 Marsden, H. W., Witch Creek. 1905.
 Massey, Herbert, Ivy Lea, Burnage, Didsbury, Manchester, England. 1909.
 Matthews, Dr. Ellen, 313 E. Ave. 60, Los Angeles. 1901.
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 McLain, R. B., Market and 12th Sts., Wheeling, W. Va. 1897.
 Metz, Chas. W., Box 296, Claremont. 1906.
 Miller, Prof. Loye Holmes, State Normal School, Los Angeles. 1905.
 Miller, W. DeWitt, American Museum Natural History, New York, N. Y. 1909.
 Miner, Dr. H. N., The Eagles' Nest, Ben Lomond, Santa Cruz County. 1903.
 Mitchell, Dr. Walton I., 321 Barnes Bldg., Wichita, Kans. 1909.
 Moran, R. B., 661 Waverly St., Palo Alto. 1897.
 Morcom, G. Frean, 1815 N. Raymond Avenue, Pasadena. 1904.
 Munk, Dr. J. A., 821 Security Bldg., Los Angeles. 1909.
 Nelson, E. W., Department of Agriculture, Washington, D. C. 1904.
 Newbury, F. E., 1153 Washington St., Oakland. 1904.
 Newkirk, Dr. Garrett, 501 Slavin Bldg., Pasadena. 1900.
 Nichols, J. T., 42 West 11th Street, New York, N. Y. 1909.
 Noack, H. R., 309 Perry Street, Oakland. 1901.
 Oberholser, Harry C., 1445 Girard St., N. W., Washington, D. C. 1904.
 Obermuller, Geo. J., Box 94, Haywards. 1908.
 Osburn, Pingree I., 735 N. Los Robles Avenue, Pasadena. 1908.
 Osgood, Wilfred H., Field Museum Natural History, Chicago, Ill. 1893.
 Owen, Virgil W., Tajo Bldg., care U. S. District Court, Los Angeles. 1896.
 Palmer, Elizabeth Day, 1741 Harvard Blvd., Los Angeles. 1909.
 Palmer, Dr. T. S., Department of Agriculture, Washington, D. C. 1903.
 Peabody, Rev. P. B., Blue Rapids, Kans. 1904.
 Pemberton, J. Roy, 846 Bryant St., Palo Alto. 1900.
 Perez, Richard M., 1222 Alvarado St., Los Angeles. 1909.
 Peterson, W. M., Putnam, N. M. 1908.
 Peyton, Lawrence, Sespe. 1909.
 Pierce, Wright M., Box 116, Claremont. 1902.
 Pleasants, Mrs. J. E., Box M, Santa Ana. 1900.
 Pomeroy, H. K., Box 575, Kalamazoo, Michigan. 1909.
 Price, A. E., Grant Park, Ill. 1905.

- Randolf, Flora A., 1706 Walnut Street, Berkeley. 1907.
- Rathbun, S. F., 217 14th Ave., N., Seattle, Wash. 1904.
- Ray, Milton S., 299 San Jose Ave., San Francisco. 1899.
- Redington, A. P., Box 66, Santa Barbara. 1897.
- Reining, Chas., 1436 Clay Street, Davenport, Iowa. 1906.
- Richards, E. B., 340 Church St., Grass Valley, Nevada County. 1909.
- Richards, Dr. T. W., 1911 N St., N. W., Washington, D. C. 1908.
- Richardson, Chas. H., Jr., Stanford University. 1902.
- Richmond, Dr. Chas. W., U. S. National Museum, Washington, D. C. 1904.
- Riley, J. H., U. S. National Museum, Washington, D. C. 1909.
- Ritter, Prof. W. E., La Jolla. 1901.
- Roberts, Austin F., 981 Summit Avenue, Pasadena. 1909.
- Roberts, Dr. T. S., 1603 4th Avenue, Minneapolis, Minn. 1909.
- Robertson, Howard, City Hall, Los Angeles. 1896.
- Rockwell, Robt. B., 1240 Downing Ave., Denver, Colorado. 1908.
- Rowley, J., 2640 Haste Street, Berkeley. 1909.
- Rudolph, Frank B., 523 10th St., Oakland. 1908.
- Sampson, Walter B., 3856 West St., Oakland. 1894.
- Saunders, Aretas A., care Forest Service, Bozeman, Montana. 1909.
- + Saunders, W. E., London, Ontario, Canada. 1909.
- Schneider, J. J., Box 363, Anaheim. 1899.
- Slater, William Lutley, Odiham Priory, Winchfield, Hants, England. 1909.
- Sharp, Clarence S., Escondido. 1902.
- Shaw, William Ray, 427 East 4th St., Long Beach. 1909.
- Sheldon, H. H., care Commercial Art Co., cor. West Mission and Brady Sts., San Francisco. 1903.
- Shepardson, D. I., 1128 Hobart Blvd., Los Angeles. 1909.
- Skinner, E. H., 1931 Barnard Park, Los Angeles. 1900.
- Smith, Austin Paul, Miller Hotel, Brownsville, Texas. 1907.
- Smith, C. Piper, Logan, Utah. 1905.
- Smith, Philo W., Jr., Box 285, Eureka Springs, Ark. 1909.
- Snyder, Prof. J. O., Box 775, Stanford University. 1900.
- Spielman, Oscar P., 99 E. North Ave., Chicago, Ill. 1909.
- Steinbeck, Wm., 1029 N. Hunter St., Stockton. 1897.
- Stejneger, Dr. L., U. S. National Museum, Washington, D. C. 1904.
- Stephens, Frank, 3756 Park Blvd., San Diego. 1894.
- Stone, D. D., R. F. D. 3, Oswego, N. Y. 1909.
- Strecker, John K., Jr., Baylor University, Waco, Texas. 1909.
- + Swales, Bradshaw H., Grosse Isle, Michigan. 1906.
- Swarth, H. S., U. C. Museum Vert. Zoology, Berkeley. 1897.
- Swett, Helen, 555 Chestnut St., San Francisco. 1901.
- + Taverner, P. A., 55 Elmhurst Avenue, Highland Park, Michigan. 1909.
- Tarbell, Olga S., 165 N. Marengo, Pasadena. 1906.
- Taylor, Loren E., Fyffe, El Dorado County. 1897.
- Taylor, Walter P., U. C. Museum Vert. Zoology, Berkeley. 1905.
- Test, Prof. Louis Agassiz, Occidental College, Los Angeles. 1909.
- Thayer, John E., Box 98, Lancaster, Mass. 1906.
- + Todd, W. E. Clyde, Carnegie Museum, Pittsburgh, Pa. 1909.
- Treganza, A. O., 62 Hooper Bldg., Salt Lake City, Utah. 1907.
- Tyler, John G., R. F. D. 8, Box 61, Fresno. 1905.
- Ulrich, Al. G., 3307 Washington Ave., St. Louis, Missouri. 1909.
- Van Fleet, Clark C., 2020 Pacific Avenue, San Francisco. 1906.
- Van Voris, William S., 1152 S. E St., Tacoma, Washington. 1909.
- Walker, Dr. Lu Ella Cool, 509 13th and Washington Sts., Oakland. 1908.
- Warren, E. R., 20 W. Caramillo Street, Colorado Springs, Colorado. 1909.
- Waterman, Edith S., 728 Paru Street, Alameda. 1906.
- Wear, Winifred N., 2448 Monterey St., Fresno. 1909.
- Wetmore, Alex., Lawrence, Kansas. 1909.
- Weymouth, F. W., Stanford University. 1906.
- Wheeler, Roswell S., 296 Park View Terrace, Oakland. 1894.
- Wheelock, Mrs. H. B., 1040 Hinman Avenue, Evanston, Ill. 1909.
- Whitman, Prof. C. O., University of Chicago, Chicago, Ill. 1909.
- + Widmann, Otto, 5105 Morgan Street, St. Louis, Missouri. 1904.
- Willard, F. C., Tombstone, Arizona. 1905.
- Wilder, H. E., Riverside. 1909.
- Willett, G., 2123 Court Street, Los Angeles. 1905.
- Wright, Howard W., 830 N. Orange Grove Avenue, Pasadena. 1907.
- Wueste, R., Morena Dam, San Diego. 1901.
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IMPORTANT MANAGER'S NOTICE

The Management of *THE CONDOR* is always open to suggestions from members of the Cooper Club, and welcomes criticism. We want you to help us, and we want to help you. Don't hesitate to write, as all letters are appreciated and carefully answered.

We further want to cement interest among club members by opening up an "exchange" and "for sale" column. This used to be a regular feature of *THE CONDOR*; but in late years it has been neglected or forgotten.

Now we want to get it running in full blast again and offer free to each and any member of the Club one notice of about 35 words in each issue of *THE CONDOR*. If you have any odd magazines to exchange or sell, you may have just what the other fellow wants. If you want any particular sets for your collection or have any sort of specimens for exchange let it be known. But under no condition will we allow the advertising of birds' eggs for sale, as the Cooper Club does not believe in selling eggs as a business.

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